Complementation Patterns of the Verb *Urge* in the Past Three Centuries

University of Tampere
School of Language, Translation and Literary Studies
English Language and Literature
Pro Gradu Thesis
Spring 2014
Yi Wen

Tampereen Yliopisto
Kieli-, kääntös- ja kirjallisuustieteiden yksikkö
Englannin kieli ja kirjallisuus

WEN, YI: Complementation Patterns of the Verb *Urge* in the Past Three Centuries

Pro gradu –tutkielma, 95 sivua
Kevät 2014

Tiivistelmä

Tämä pro gradu -tutkielma tarkastelee englannin kielen verbiä *urge* brittienglannissa vuodesta 1710 nykypäivään. Tutkielman pääatavoitteina on luokitella *urge*-verbin komplementteja ja selvittää, kuinka sen komplementaatiorakenteet ovat muuttuneet ajan myötä; sekä tutkia verbiin liittyvien syntaktisten ja semanttisten näkökohtien keskinäistä suhdetta.

Rakenteellisesti tutkielma koostuu kahdesta osasta: johdanto-osiosta ja korpusaineiston analyysistä. Johdanto-osio sisältää aihealueen teoreettisen viitekehyksen, mukaanlukien korpuslingvistiikan merkittäviä kysymyksiä, komplementaation vakiintuneita teorioita ja tutkielman *urge*-verbistä aiemmassa kirjallisuudessa. Tutkielman toinen osa keskittyy varsinaiseen korpusaineistoon, ja sen analyysistä saadaan useita tuloksia. Komplementaatiotutkimuksen lähteinä käytetään kahta korpusaineistoa, *The Corpus of Late Modern English Texts* ja *The British National Corpus*. Aineisto on edelleen jaoteltu kolmeen osioon, ulottuen 300 vuoden taakse nykyhetkestä. *Urge*-verbin komplementtirakenteet luokitellaan, ja niiden kehitystä ja muutosta seurataan kullakin ajanjaksolla. Komplementaatiotutkimus sisältää lisäksi analyysin *urge*-verbin eri merkityksistä.

Tulokset osoittavat, että *urge*-verbin yleisen taantuman myötä myös jotkin sen 1700-luvulla yleisesti käytetyt rakenteet, kuten *that*-lauseke ja nominilauseke (NP), ovat myös taantumassa; 1800-luvun puolivälistä NP + *to*-infinitiivistä on muodostunut nominilausekkeen sijasta *urge*-verbin vallitseva komplementtirakenne; ja että ajan saatossa on muodostunut moninaisia adverbiaalifraaseja (AdvP) ja nykyenglantiin tultaessa niiden lukumäärä on saavuttanut huippunsa. Komplementtirakenteiden ja niiden merkitysten läheisestä suhteesta johtuen joidenkin rakenteiden taantuma viittaa myös niihin liittyvien merkitysten vähenemiseen. Tutkielma käsittelee myös kahta kiistanalaista rakennetta, *to*-infinitiivi ja *-ing*-muotoa. Aiemman kirjallisuuden tarkastelu osoittaa, että *-ing*-muodon kieliopillisuudesta ei vallitse yksimielisyyttä. Oma pohdintani tästä rakenteesta on rajattua, sillä rakennetta ei ilmene näyteaineistossa. *To*-infinitiivirakenne puolestaan on haasteellinen Bachin generalisaatiolle, ja esimerkit rakenteesta erinäisissä lähteissä tukevat näkökohtaa, että kyseisen generalisaation uudelleenharkinta ei ole ennenaikaista.

Asiasanat: urge, komplementaatio, korpus, verbi

Abstract

This Pro Gradu thesis studies the English language verb *urge* in British English from the year 1710 to present day. The main purposes of the study are to categorize the types of complements that the verb *urge* takes and find out how its complementation structures have changed over time; and to compare the relation between the syntactic and semantic aspects concerning the verb.

Structurally, this thesis is comprised of two parts: an introductory part and corpus data analysis. Incorporated in the introductory part is the theoretical framework, including prominent issues in corpus linguistics, established theories in complementation, and discussion of the verb *urge* in earlier literature. The second part of the thesis focuses on the actual corpus data and a number of findings are drawn from the data analysis. Data retrieved from two corpora, the *Corpus of Late Modern English Texts* and the *British National Corpus*, are used as sources for the complementation study. The data are further divided into three periods extending 300 years back from modern time. The complement patterns of *urge* are categorized, and the development and change of patterns are recorded according to each time period. Further incorporated with the complementation analysis are the senses of the verb *urge*.

The findings show that with a general declining tendency of the verb *urge*, some commonly used complement patterns in the 18th century, such as *that*-clauses and NPs, have also been undergoing a declining trend; since the mid-19th century, the NP + *to*-infinitive has taken over the NP pattern as the dominant complement pattern of urge; various types of AdvPs emerge over the course of time, and by Modern English, their number has reached a peak. As patterns and senses are closely related, the declining of certain patterns also indicates a downward direction of the senses that are associated with the patterns. Two controversial patterns, namely the *-ing* form and the *to*-infinitive pattern, are also discussed in the thesis. Survey in earlier literature shows that there is a lack of consensus on the *-ing* form. My discussion on this pattern is limited as this pattern does not appear in the sample data; as for the *to*-infinitive pattern, it poses a challenge to Bach's Generalization, and examples of this pattern from various sources support that reconsideration of this generalization is not premature.

Keywords: urge, complementation, corpus, verb

Table of Contents

1 Introduction

This thesis focuses on the complement patterns of the verb *urge*. The term *pattern* is defined by Hunston (2002, 169) as "a sequence of grammar words, word types or clause types which co-occur with a given lexical item." In other words, borrowing from Lindquist's (2009, 51) term, complement patterns involve the *local grammar* of a lexical item.

Consider the following sentences taken from the Corpus of Late Modern English Texts (CLMET) and the British National Corpus (BNC):

(1) Mr. Akenside, who writes Odes; in one he has lately published, he says, "Light the papers, **urge** the fire." (Walpole 1735-69, *Letters*).
(2) Hatred, indignation, and rage, frequently **urge** them to act in opposition to their known interest, and even to hazard their lives, without any hope … (Ferguson 1767, *An Essay on the History of Civil Society*).
(3) It might easily be **urged**, in answer that many a ship (the Victoria, for instance) was sunk because an admiral gave an order which a cabin boy could see was wrong (Chesterton 1912, *What's Wrong with the World*).
(4) Now the reverse gear was selected, **urged** into place with a slight rocking motion and the car travelled backwards before hesitantly coming to rest (BN1 2018).

The authentic sentences above demonstrate that in addition to the surface syntactic difference in the complement pattern, there is also a difference in the meaning of the verb *urge*. Taking corpus data as linguistic evidence as a starting point, this thesis covers a wide range of issues in the area of complementation. As demonstrated by the sentences above, this thesis investigates the relation between senses and complement patterns. Furthermore, the choice of complement patterns can be affected by the close environment in which it occurs, and such extra-semantic factors are also taking into consideration when examining the complement patterns of *urge*.

In this thesis, I aim to provide a diachronic study of the complement patterns of the verb *urge*, stretching from early 18th century to late 20th century. Drawing data from two significant corpora, I incorporate established theories, such as the control theory on empty categories, theta theory, and syntactic and cognitive principles with data analysis. The main purpose of this thesis is double fold:

(i) categorizing the types of complements that *urge* takes and identifying complement shifts over the past 3 centuries;

(ii) comparing the relation between the syntactic and semantic aspects of the verb *urge*, while taking the immediate environment in which *urge* occurs into consideration.

From a practical point of view, the importance of complementation has been highly acknowledged; and the study of complementation can "facilitate the development of both accuracy and fluency" (Hunston 2002, 167) in language-learning. Nevertheless, this thesis only scratches the surface of the field of complementation, and it prepares for future efforts exploring deeper into this area.

2 Corpora and the use of corpora

In this chapter, the focus is on corpora and the use of corpora. I first provide a general discussion on the definition and history of corpora and using corpora as a tool for research, and then introduce the CLMET and the BNC, the two corpora which will be used in this study, in more detail.

2.1 Approaches to linguistics using corpus data

Francis (1982, 7) defines linguistic corpus as "a collection of texts assumed to be representative of a given language, dialect, or other subset of a language, to be used for linguistic analysis." In explaining this term, Francis (1982) places an emphasis on the last phrase, as he notes that purposes of compilations of corpora can be different from linguistic analysis.

Traditionally, armchair linguists relying on retrospection for linguistic description are skeptical of corpora and findings derived from corpus data. Among the three sources of data mentioned by Leech (1968), namely, corpus data, native informant tests, and introspection of the analyst, he advocates an emphasis on the first two types of sources during the process of collecting data. Based on Chomsky's threefold system of level of adequacy for the evaluation of grammars, Leech rejects the claim that a descriptively adequate grammar of a language can be derived from primary corpus data alone, for it only satisfies *observational adequacy*. He further believes that "the linguist's 'scientific intuition' acting on data available through introspection" can achieve *descriptive adequacy*; and *explanatory adequacy* is achieved when "the analyst formulates a theory embodying his descriptive generalizations" (1968, 100). Partington (1998, 2) agrees with Leech's opinion on the using of corpora. He summarizes (ibid.) that corpus use is "a question of corpus *plus* intuition."

Leech's unbiased view on corpus data has been shared by other linguists. According to Svartvik (1992, 8), the number of corpus-based studies in English language has increased rapidly since the 1960s. This trend demonstrates the preference for corpus data with the development of

computer technology. Svartvik (ibid.) presents a generous list on the advantages of using corpus data: corpus data is objective, verifiable, and it is necessary to use corpora for variation, dialect, register and style studies; corpus data provides frequency of occurrence; corpus data are theoretical resources and are important information sources for applied fields of linguistics; corpora provide total accountability of linguistic features; corpus data can be accessed worldwide without time or place restrictions; and it is convenient especially for non-native speakers.

However, Svartvik (1992, 10) is also aware of the "potential hazards" of heavy dependence on corpus data alone. Among other things, Svartvik notes that the delusion that corpus size alone matters, while overlooking the quality and suitability viewpoints, can pose a trap for linguistic analysis.

Leech (1968) does not neglect the limits of corpus data. Lindquist's (2009, 10) list of the drawbacks of corpora more or less agrees with Leech's earlier observation: corpora are never big enough to cover everything compared to the infiniteness of languages; corpora data contain mistakes and the data need to be verified by native speakers for acceptance; and corpora findings may be trivial; finally, one always "needs a theory of language to know what to search for in a corpus and to explain what you find."

2.2 Recall and precision

One prominent pitfall that concerns corpus linguists is recall and precision. Salton (1973, 262) defines recall and precision as "the proportion of relevant matter retrieved and the proportion of retrieved material actually relevant," respectively. Ball (1994, 295) addresses the recall problem as "the most serious pitfall".

When using a corpus for data retrieval, search strings for retrieving relevant data affect the outcome in a crucial way. The seriousness of the recall problem lies in the fact that the analyst may not realize that some relevant data are missing during the process of data retrieving from the corpus.

The precision problem can be noticed much easier, as it can be dealt with by manually filtering the irrelevant data that is retrieved. An ideal algorithm misses no data and gives high precision of data. However, as Ball points out, sometimes there is no perfect match between recall and precision.

2.3 Normalized frequency

In corpus-based studies, it is important to examine the frequencies of linguistic items. However, corpora's sizes are not uniform, and raw frequency can be misleading when conducting comparisons. A convenient way to avoid this problem is to calculate the normalized frequency. Normalized frequency is an adjusted frequency for comparing counts in texts that are not of the same length (Biber et al. 1998, 263).

To calculate normalized frequency of a linguistic item, one can start by simply dividing the occurrences of the linguistic item by the number of words in the text, and then multiplying the calculated result by any desired basis for norming.

In later chapters of this thesis when my data is introduced, normalized frequencies are calculated for comparing different complement patterns across different time periods in the CLMET corpus and also between the CLMET and the BNC.

2.4 The CLMET and the BNC

In this thesis, data drawn from two corpora, the CLMET and the BNC, are used for conducting complementation analysis. The two corpora will be introduced in detail in the following subsections.

2.4.1 The Corpus of Late Modern English Texts

As its name suggests, the Corpus of Late Modern English Texts corpus is a body of texts compiled from the Late Modern English period, specifically from the year 1710 to 1920. According to the corpus compiler De Smet (2005, 70), the corpus is "entirely compiled on the basis of texts from the *Project Gutenberg* and the *Oxford Text Archive*." The CLMET is divided into three parts, with each part extending 70 years: 1710 – 1780, 1780 – 1850, and 1850 – 1920. The following table shows the sizes of each part of the original version of the CLMET.

Part	1710-1780	1780-1850	1850-1920
Total words	2,096,405	3,739,657	3,982,264

Table 1: Corpus makeup of the CLMET (the original version)

The CLMET has three versions: the original version, the extended version, and the 3.0 version. The size of the 3.0 version has grown to approximately 10.5 million, 11.3 million, and 12.6 million words regarding each part. The first part of the 3.0 version and the third part of the original version of the CLMET are used for this thesis.

De Smet (2005) illustrates the four principles that guide the compilation of corpus data. First, there is a strict time-span for authors' year of birth and the publication years of their works. The purpose of this principle is to "increase the homogeneity within each sub-period" (ibid., 70) and avoid splitting an author into two different periods. As noted by De Smet, the disadvantage of this principle is that some authors expanding two periods of time have to be excluded.

The second principle is that all the authors included are British and are native English speakers. The third principle states that the amount of text included from one author to the corpus is restricted to 200,000 words. The obvious reasons for this are to maintain the equal proportion of data between authors and to avoid idiosyncrasies of certain authors.

The fourth principle involves the compiler's intention to compile the corpus with a linguistic interest rather than interests of the *Project Gutenberg* and the *Oxford Text Archive*. As previously defined by Francis (1982), corpora, such as the CLMET, are unique because they serve the purpose of being used for linguistic analysis. Finding the original texts to be highly literary, formal, and of male-dominant nature, De Smet deliberately favored non-literary and women's texts from lower registers. However, De Smet does not hesitate to say that the CLMET is "biased to literary texts written by higher class male adults" (ibid., 72).

Notable advantages of the CLMET are twofold when used for the study of complementation: the corpus is flexible – texts from the corpus can be expanded or reduced at one's wish; and the size of the CLMET is suitable for complement study related to the topic of this thesis.

However, like any presently-existing corpus, the CLMET is not perfect. Its disadvantages are also noted by De Smet. First, the makeup of the texts is biased as mentioned before; and second, the bibliographical history of corpus texts is often unclear, making the corpus unsuitable for studies involving punctuation or spelling, etc. It is worth mentioning that the second disadvantage does not have any notable impact on the current study of this thesis.

2.4.2 The British National Corpus

As the diachronic scope of this thesis suggests, the study extends from the Late Modern English period to Modern English. The British National Corpus (BNC) provides as a good source corpus for studying contemporary English.

According to Hoffmann et al. (2008, 27), the BNC "was created to be a balanced reference corpus of late 20th century British English…, compiled by a team of people representing a number of research institutions, publishers and libraries." Hoffmann et al. (ibid.) believe that the BNC project team's considerable effort in planning the corpus and specified selection criteria for corpus material help the BNC mirror the language of the modern time.

In arguing the contemporariness of the BNC, Hoffmann et al. (ibid., 45) notice that with the development of the Internet, some nouns and verbs (such as *to google*) cannot be found in the corpus, however, changes of the English grammar are much slower and the BNC undoubtedly contains Present-day English.

The BNC consists of about 90% written material (about 87.9 million words) and 10% spoken material (about 10.4 million words). Within the written material, the BNC text contains both published and unpublished material, ranging from books to school essays. Within the published written material, 91% are published from 1985 to 1993. In order to be comparable with the CLMET data, the text domain in the BNC which will be explored for this thesis is the *imaginative prose*, representing 19% of the written component.

3 Complementation

This chapter introduces the core concepts that this thesis deals with. To understand the study of complementation, the definitions of complementation, the distinction between complement and its long-time "rival" adjunct, as well as other theoretical basis on the structure of English are discussed in detail.

3.1 A brief introduction to complementation

Quirk et al. (1985, 65) define complementation as "the function of a part of a phrase or clause which follows a word, and completes the specification of a meaning relationship which that word implies."

Specifically related to the topic of this thesis is verb complementation, which examines complementing constituents, that is complements, a verb takes. Selected by its head verb, a complement serves to complete the meaning of the verb.

Quirk et al. observe that complementation can be either obligatory or optional. They (ibid., 66) illustrate obligatory verb complementation in the following way:

(1) He deceived *his father*. But *He deceived.

(2) He allowed me *a respite*. But *He allowed me.

The meanings of the verbs *deceive* and *allow* in (i) and (ii) would be incomplete without the obligatory complement noun phrases *his father* and *a respite*.

In the case of optional complementation, Quirk et al. present the example "Joan is eating (her lunch)." The omission of *her lunch* does not affect the meaning.

3.2 Complements vs. adjuncts

Consider the following example taken from Huddleston & Pullum (2002, 221).

(3) He doesn't know whether or not she likes him.

(4) I'm inviting him, whether or not she likes him.

In both examples, the underlined parts look identical, but they are different in terms of complement and adjunct distinction. In (3), the subordinate clause is a complement, while in (4) it is an adjunct.

Huang (1997, 75) defines complements as elements that "help complete the meaning of a sentence as required by a verb." In contrast, adjuncts do not contribute to the completeness of the meaning of a sentence. Similarly, Huddleston (1984, 177) treats complements as "the nucleus" of a clause and adjuncts as "extra-nuclear" elements. Complements are closely linked to the head, whereas adjuncts do not have any close relation with the head.

Herbst et al. (2004, xxiv) sum up two characteristics of adjuncts: 1) the position of adjuncts can be relatively free; and 2) the form of adjuncts is not determined by the head verb.

One further distinction between complements and adjuncts noted by Huang (ibid.) is that subcategories of verbs refer to only complements and not adjuncts, because adjuncts can occur with any type of verbs. Huddleston & Pullum (2002, 219) term this difference licensing: verbs are subcategorized according to the types of complements they license. The following example (from Huang 1997, 71) is ill-formed, because the subcategorization frame for the verb *die* is [_], and it cannot take any NP complement:

(5) *The boy died Bill.

Another distinction between complements and adjuncts is the obligatoriness property. Adjuncts are always optional, whereas complements are obligatory but may be optional. Syntactically optional complements can be semantically obligatory as in sentence (6) below.

(6) She's reading *the report*. (optional complement)

(7) She left *because she was ill*. (adjunct)

The complement *the report* in (6) is an optional complement, for leaving out the NP does not affect the grammaticality of the sentence (Huddleston & Pullum 2002, 221). In sentence (7), "because she was ill" is an adjunct.

Complements and adjuncts are also distinguished in their grammatical category. Huddleston (1984) states that NPs and AdjPs are prototypical complements and AdvPs and PPs are prototypical adjuncts. This is generally held true. However, these categories can also appear either as complements or adjuncts. Take PPs as an example. Both (8) and (9) take a PP, but *on Tuesday* is an adjunct of time, and *on her birthday* is a complement, as "*He congratulated." is incomplete in meaning.

(8) He was born *on Tuesday*. (Adjunct of time)

(9) He congratulated *on her birthday*. (Complement)

There are further distinctions that separate complements from adjuncts, such as replacing certain elements in a clause by an anaphoric expression. Huddleston & Pullum (2002, 223) apply *do so* to judge between complements and adjuncts, but lengthy discussions on this test will not be provided here.

To sum up, there are distinctions between complements and adjuncts; however, the boundary between the two is not always as clear as the two terms superficially suggest. In the next section, the two concepts are discussed in more detail under the valency framework.

3.3 Valency theory

Herbst et al. (2004, xxiii) define valency theory as "a model of language that derives from the framework of dependency grammar as originally developed by the French linguist Lucien Tesnière." In valency theory, the distinction between complements and adjuncts is made based on Tesnière's three basic criteria: form, i.e. formal categories, obligatoriness, and semantic descriptions, i.e. semantic roles (Faulhaber 2011, 4).

Faulhaber (ibid., 4-5) observes that to draw a distinction between complement and adjunct is not problematic, but perfect differentiation between the two has been difficult to reach, and approaches differ as "whether the distinction is seen as a gradient, in the sense that the two notions are to be found at opposing ends of a continuum with various intermediate states, or whether a prototypical approach is taken whether the distinction is relativized by accepting better and worse exemplars."

Herbst et al. (2004, xxxiii) believe that the boundaries between complements and adjuncts are "subject to gradience." This thesis does not differentiate intermediate states of complements, but will adopt the approach of Herbst et al. towards optional complements, while disregarding subjects as complements, although they are included as such by the valency theory. To illustrate with an example from Herbst et al. (2004, xxxi), the underlined parts in the following sentence are included as complements of the verb *write*; in particular the complement in italics "to Winifred Nicholson" is considered as an optional complement by Herbst at al..

(10) He wrote *to Winifred, Nicholson*: "St Ives is on the edge of Europe and the first English rebuff to those coming from distant parts."

Complements will be treated equally in this thesis, disregarding their obligatoriness.

3.4 Thematic relation, theta theory, and the Theta Criterion

Haegeman (1991, 36) states that every predicate has its argument structure, and the argument structure of a predicate predicts the number of constituents that a predicate takes. However, this mechanism does not specify the relations established between the predicate and its arguments when the former selects the latter. Fillmore (1968, 382) in discussing case roles states that:

> I believe that human languages are constrained in such a way that the relations between arguments and predicates fall into a small number of types. In particular, I believe that these role types can be identified with certain quite elementary judgments about the things that go on around us: judgments about who does something, who experience something, who benefits

> from something, where something happens, what it is that changes, what it is that moves, where it starts out, and where it ends up.

In the above statements, Fillmore refers to thematic relations between predicates and arguments. In common practice, linguists often refer to the particular thematic role of an argument "by the most prominent thematic relation" (Carnie 2002, 169).

Huang (1997, 78) notes that only arguments are assigned thematic roles by their head predicates, and adjuncts are not. However, there is no common agreement among linguists on whether adjuncts can be assigned thematic roles (Dowty 1991, 554). This thesis accepts thematic roles for only arguments.

Haegeman (1991, 41) defines theta theory as "the component of the grammar that regulates the assignment of thematic roles." It is worth noting that theta theory lacks a general agreement on the number and the exact label of thematic roles. There are disagreements regarding the agent role. Carnie (2002, 168) notes that agents must be "alive and capable of volition", while there are scholars who disagree and would label non-volitional natural phenomena as agents. For those sentences without alive and volitional agents, Huddleston & Pullum (2002) introduce the causer role. Agents are included in the causer roles.

Sometimes theme and patient are used interchangeably, but Huddleston & Pullum (2002) distinguish these two by stating that patient is "affected" especially by actions performed by an agent; whereas a theme has a much wider role, involving movement and location in space, spatial and temporal perceptions.

As regards the interpretation and labels of different thematic roles, this thesis adopts Carnie (2002, 168-169) and Huddleston & Pullum's (2002, 230-233) definitions:

> Causer: involves direct or immediate causation of an action or event.
> Agent: the initiator or doer of an action.
> Patient: the entity that is affected by an action performed by some causer, especially an agent.
> Theme: the entity that undergoes actions, are moved, experienced or perceived.
> Goal: the entity towards which motion takes place.
> Source: the entity from which a motion takes place.

Location: the place where an action occurs.

The Theta Criterion, which states that "each argument is assigned one and only one theta role; each theta role is assigned to one and only one argument" (Chomsky 1981, 36) requires the exact allocation of each theta role with each argument assigned by a predicate. The Theta Criterion offers an explanation for the concepts that are to be introduced in the following section.

3.6 Control, NP movement, and the verb *urge*

This section focuses on control, NP movement, and grammars in relation to the verb *urge*.

3.6.1 Object control

The Theta Criterion states that a predicate never fails to assign each argument its unique theta role. Consider the following sentence taken from the Oxford English Dictionary under the verb *urge* entry:

(11) His patriotism urged him to serve his country abroad. (Scott, *Black Dwarf* xix, 1816)

In the main clause, the matrix verb *urge* assigns a causer role to the subject NP "his patriotism", and a patient role to the object NP "him". In the subordinate clause, the predicate *serve* also assigns two roles: an agent and a patient. Under my interpretation of the clause, the patient role should be assigned to "his country", and the agent role is "him". "Him" is assigned with two roles, which obvious violates the Theta Criterion which "allows one theta role per NP" (Carnie 2002, 260). To settle this problem, the notion of understood subject PRO is introduced.

So sentence (11) can be written as:

(12) His patriotism urged him [PRO to serve his country abroad].

The PRO here is an empty category that is co-referential and controlled or bound by its antecedent "him". The PRO gets the agent role from the embedded predicate *serve*. Sentence (12) involves control, and to be specific, it is object control, as the object NP is the controller.

3.6.2 Raising-to-object

A structure that appears nearly identical to object control is raising-to-object.

(13) Barnett believed the doctor to have examined Tilman.

(14) Barnett persuaded the doctor to examine Tilman.

The surface string in (13) and (14) (taken from Davis & Dubinsky, 2004) is near-identical. However, there are differences in the two sentences. In (13) "the doctor" is semantically linked only to the verb *examine*, and it is assigned one theta role, the agent role, by the verb *examine*. The matrix verb *believe* assigns two roles: the agent role to its subject, and the theme role to the embedded clause "the doctor to have examined Tilman". In (14), the object "the doctor" plays two roles, one is the patient role assigned by *persuade*, and the other is the agent role assigned by *examine*. The matrix verb *persuade* assigns three theta roles: agent, patient, and goal (the clausal complement "to examine Tilman").

In sentence (13), "the doctor" is the actual subject of the embedded clause, and it is raised to the object position through NP movement. Sentence (13) can be represented as (15):

(15) Barnett believed __ [the doctor to have examined Tilman].

The construction in (15) is referred to as Raising-to-object. Whether a construction involves raising or control depends on the matrix verb. Some empirical distinctions between the two types of construction are provided in the sub-section below.

3.6.3 Object control and the verb *urge*

There are a number of tests that we can perform in order to distinguish raising and control. The insertion of the meteorological expression *it* or existential *there* as subjects can be used for diagnosing a predicate (Davies & Dubinsky 2004, 7-8). These subject NPs are semantically empty and only raising predicates which do not assign theta roles to their subjects can be used with them.

(16) Barnett believed it to have rained.

(17) *Barnett persuaded it to rain.

Obviously, it only works with the verb *believe*, for it does not assign any theta roles to *it*.

A further test for the two constructions is to apply *idiom chunks* or fixed expressions.

(18) The cat is out of the bag.

The above expression is ambiguous, as it can be interpreted literally as "a particular feline" (ibid., 8) not confined in the bag or as an idiom that a secret is leaked out. Davies & Dubinsky note that with raising predicates, this expression remains ambiguous, but with control predicates, the interpretation can be reduced to the literal meaning. Carnie (2002, 260) notes that this construction only gets its idiomatic meaning when the expression stays as a whole, and when the expression is broken up, it can be interpreted as "the feline is out of the bag." In raising constructions, the expression can remain as a whole, whereas in control constructions, the cat cannot be the subject of the clause "to be out of the bag."

(19) Barnett believed the cat to be out of the bag.

(20) Barnett persuaded the cat to be out of the bag.

In (19), the expression remains ambiguous. In (20), the cat does not denote any secret but "a particular feline."

Turing now to the verb *urge*. As mentioned earlier, sentence (11), reintroduced here as sentence (21), involves object control. This can be tested with the fixed expression.

(21) His patriotism urged him to serve his country abroad.

(22) Someone urged the cat to be out of the bag.

The testing sentence (22) shows that the two interpretations of the expression are reduced to the literal meaning. Thus *urge* is an object control verb. The object NP "the cat" in (22) controls the understood subject PRO, which is co-referential to the object NP. The construction NP + *to*-infinitive for *urge* is a typical object control construction.

3.7 Factors bearing on complement selection

In this section, I start with extra-semantic factors that can play a role in complement selection, such as the Great Complement Shift, and then I proceed to semantic influences on complement selection.

3.7.1 Extra-semantic factors

3.7.1.1 The Great Complement Shift

Over the history of the English language, there have been general tendencies of shifting complement patterns. According to Vosberg (2009), starting from Middle English period, finite *that*-clauses were replaced by *to*-infinitives. Since late Middle English, *-ing* forms started to replace *to*-infinitives. Such long-term and general tendencies of the replacement of the infinitival with the *–ing* form are first referred to by Rohdenburg (2006) as the Great Complement Shift.

In Rudanko's (1998) diachronic study on *to –ing* and *to*-infinitive constructions, he establishes the notions of "full shift" and "partial shift". By "full shift", Rudanko refers to verbs that take only *to –ing* construction, and the infinitival construction is excluded as a complement pattern choice. Verbs, such as *object*, *own*, and *take* belong to this full shift group. "Partial shift" verbs "have undergone a degree of shift regarding the type of complementation that they govern but the shift has not been total" (ibid., 345). Partial shift verbs select both *to*-infinitive and *to –ing* patterns,

but Rudanko (ibid., 347) observes that "the use of the prepositional *to –ing* constriction has likewise been expanding."

3.7.1.2 The Complexity Principle

Rohdenburg (2006, 146) describes the Complexity Principle as representing "a correlation between two dimensions, cognitive complexity and grammatical explicitness." His definition for the Complexity Principle is:

> In the case of more or less explicit constructional options the more explicit one(s) will tend to be preferred in cognitively more complex environments (1996, 151).

As regards the explicitness of constructions, generally, finite construction is more explicit than nonfinite construction; within nonfinite constructions, the *to*-infinitive is more explicit than the bare infinitive, and the *–ing* form is the least explicit.

Environments that are sensitive to the Complexity Principle include: complex subordinate clauses, negation, complex subjects or objects, structural discontinuity, passivization, etc.

To illustrate structural discontinuity, Rohdenburg (2006, 148-149) demonstrates examples with insertions of intervening elements between matrix predicate and its complement; he notes that constructions with insertions predictably favor the more explicit finite complement than the non-finite complement type. To bring this point further, Vosberg (2009, 219) examines the degree of cognitive complexity of insertions. He notes that the degree can be measured by length and category: the longer the insertions (have more words) and the more complex in category (such as sentential constituents are more complex rather than non-sentential constituents) will prefer the more explicit structure.

Extraction, which is a form of structural discontinuity, deserves a separate subsection.

3.7.1.3 Extraction Principle

Extractions involve constituents being fronted, or moved to the left, and such movements leave a gap or trace (Postal 1994, 159). In relation to the Complexity Principle, extractions of constituents can lead to grammatically more explicit constructions. Vosberg (2003a, 308) develops the Extraction Principle regarding two types of predicate complement pattern:

> In the case of infinitival or gerundial complement options, the infinitive will tend to be favored in environments where a complement of the subordinate clause is extracted (by topicalization, relativization, comparativization, or interrogation, etc.) from its original position and crosses clause boundaries.

Backed with statistical analysis, Vosberg (ibid., 307) outlines four major types of environments that are subject to the Extraction Principle:

(a) Relative extraction: …it is the worthy Spencer whom I'm sure you remember to have often heard me mention *t* in the relation of my private misfortunes … (John Dauncey, *The English Lovers*, 1622).
(b) Comparative extraction: "Twas her Charming Face and modest Look, that represented to him a thousand more Beauties and taking Graces, than he remembered ever to have seen *t* in his unconstant and faithless mistress: …" (Philip Ayres, *The Revengeful Mistress*, 1696)
(c) Topicalization: … even her acquaintance with the Belfield's she remembered not ever mentioning *t*… (Fanny Burney, *Cecilia*, 1782)
(d) Interrogation: Now, how many do you remember to have heard named *t*? (Sabine Baring-Gould, *In the Roar of the Sea*, 1892)

Regarding the general tendency of *to-infinitives* being replaced by *–ing* forms in the Great Complement Shift, the Extraction Principle can slow down the establishment of the *–ing* forms. Based on his data findings, Vorsberg (2003a, 310) summarizes that relativization and comparativization tend to avoid *–ing* forms, while topicalization is not as sensitive to extractions, as demonstrated in the above sentences taken from Vosberg.

3.7.1.4 The horror aequi principle

As noted by earlier linguists, especially Poutsma (1904-1929, 619), the immediate sequence of two *–ing* forms or two *to-infinitives* is not common. Based on this observation, Rohdenburg (2003, 236)

formulates a principle, termed the *horror aequi* principle, which states the avoidance of two immediately adjacent and structurally identical constructions:

> *The horror aequi principle* involves the widespread (and presumably universal) tendency to avoid the use of formally (near-) identical and (near-) adjacent (non-coordinate) grammatical elements or structures.

This principle can play a part in delaying or accelerating the general tendency of the Great Complement Shift.

To illustrate this principle, I take one example from Vosberg (2003, 316). The sentence below avoids the succession of two *to*-infinitives, and the sequence of *to*-infinitive + V-*ing* is adopted.

(23) … Amy … told me, it was not safe for me *to attempt doing him any Good*, … (Daniel Defoe, Roxana, 1724)

Based on his own case studies, Vosberg (2003, 321) points out that horror aequi can be weakened in two ways: insertions between the matrix and subordinate clauses following the Complexity Principle; and complements with *not*-negation prefer *to*-infinitives.

Furthermore, a string of two *–ing* forms is worse than a string of two *to*-infinitives. One way to avoid two *–ing* forms is to replace the latter *–ing* form with a non-sentential NP complement (Vosberg, 2003, 2009).

3.7.2 Other factors bearing on complement selection

Another interesting aspect of complementation is the semantics of complement patterns. As it has been widely studied by linguists over the past century, this short subsection can only touch upon the semantics of *to*-infinitive, *–ing*, and *that*-clause complement patterns.

Some linguists believe that the complement type of a predicate is purely a syntactic issue dictated by the subcategorization frame (Smith 2009, 361). However, a different approach incorporating semantic interpretation of complementation has been dealt with in depth by a number of notable linguists.

3.7.2.1 *To*-infinitive vs *–ing* form

In distinguishing *to*-infinitive and *–ing* form, Wood (1956, 13) notices that the "gerund denotes something more general, the infinitive something more specific." Wood (ibid., 14) further notices that when used after certain predicates, such as *regret*, *remember*, and *forget*, "gerund refers back where the infinitive refers forwards."

Bolinger (1968) agrees with Jespersen's (1940) observation that *to*-infinitives denote the "imaginative (unreal)." Furthermore, by looking at minimal pairs involving *to*-infinitives and *–ing* forms, Bolinger (1968) comes to the conclusion that the semantic contrast between *–ing* and infinitive is "a contrast between two aspects: reification versus hypothesis or potentiality" (1968, 124). Quirk et al. (1985, 1191-1193) agrees with the potentiality indicated by the *to*-infinitive. Kiparsky & Kiparsky (1970) note that *to*-infinitives are only found with non-factive predicates; while *–ing* forms can be found with factive predicates. But when subject to action or event restrictions, as well as when used after a preposition to serve as a substitute for *to*-infinitives, *-ing* forms are also found with non-factive predicates.

Wierzbicka (1988, 31-32) introduces the notion of *wanting* associated with *to*-infinitives. However, she dismisses Kiparsky & Kiparsky's (1970, 146) view that *–ing* used after prepositions shares the same meaning as *to*-infinitives. To bring this point further, Rudanko's (2003, 276) study on predicates taking both *to*-infinitives and prepositional *–ing* forms shows that *to*-infinitives carrying atelic feature ("with the event lacking a natural end point") and the other denoting telic feature ("with the action having a natural end point").

Allerton (1988) summarizes previous findings on the distinctions of *to*-infinitives and *–ing* forms and also presents his own findings of syntactic and semantic features of the two forms in an explicit contrastive way.

INFINITIVE	GERUND

infrequent activity	regular activity
intermittent activity	continuous activity
interrupted activity	continuing activity
uncompleted activity	completed activity
contingent/possible activity	event presented factually
particular time and place	neutral time and place
specific subject	non-specific subject
more verbal character	more nominal character

Table 2: Allerton's (1988, 21) summary of distinctions between the *to*-infinitive and the gerund

More recent studies in differences between *to*-infinitive and *–ing* form by Smith (2009) and Duffley (2000) focus on the semantics of *to* and *ing*. Smith (2009, 386) shows that the *to*-infinitives reflect a source-path-goal schema, while *–ing* patterns reflect "varying kinds of semantic overlap between the matrix and subordinate clauses." Duffley (2000) suggests treating *to* in the *to*-infinitive as a preposition instead of an infinitive marker, and he rejects extending the progressive interpretation to the *ing* in the *–ing* form as for temporal interpretation. In discussing the meaning of the gerund, Duffley (ibid., 225) believes that the progressive use of *ing* indicates "the interiority of the event as containing the realizer of the event" and the realizer is at a certain stage of the whole process; while the gerundive *–ing* does not situate the realizer at any point of the event but evoke the whole event indicated by the *–ing* form. He proposes that "*-ing* evokes the interiority of its event holistically as that which is '[verb]ed' in the event expressed by the matrix" (ibid., 227-228).

Before his discussion on the differentiation between the *to*-infinitive and the *-ing* form, Egan (2008) first classifies matrix verbs according to their semantics and tense-aspect modality relationship between the matrix verb and the complement clause. Egan then looks at each class of matrix verbs that take the *to*-infinitive, and suggests taking *to* in the *to*-infinitive as a preposition which carries both temporal and spatial meaning. According to him, the spatial meaning is denoted by *to* as a preposition in the path-source-goal schema and this schema also carries a temporal sense, as the mover has still not reached his or her goal. Finally Egan comes to the conclusion that *to*-

infinitive complements indicate “a situation, viewed as a whole, is profiled as the more/most likely of two or more alternatives in some specified domain” (ibid., 99).

Egan carries out a similar analysis with the *-ing* form as with the *to*-infinitive. He first looks at different categories of matrix verbs that take the *-ing* form, and further incorporating Vendler's four classes of predicates (activities, accomplishments, states, and achievements) which can be encoded by the *-ing* form, Egan comes to the conclusion that the *-ing* form “profiles a situation as extended in some specified domain” (ibid., 132). To explain it more specifically, the *-ing* form denotes imperfectivity and durativity.

3.7.2.2 *To*-infinitive vs. *that*-clause

In Riddle’s (1975) discussion on complementizer choices, she acknowledges Karttunen’s (1974) observation that *to*-infinitives tend to express activities, while *that*-clause is associated with a mental or physical state. Riddle further develops her own arguments for time reference and controllability of the matrix verb. According to Riddle (1975, 469), *to*-infinitive refers to “a time posterior to that of the embedding verb,” and higher controllability of matrix verbs has to do with “a closer, more personal involvement between the subject of the embedding verb or the speaker and the predication of the complement with the infinitival rather than the that complementizer” (ibid., 472).

Based on the controllability distinction, Riddle further brings out the authority or power difference between *to*-infinitive and *that*-clause. She notes that the *to*-infinitive, which display a closer subject and embedding predicate relationship, is less authoritative, whereas *that*-clauses shows more authority.

Riddle’s argument on time reference and controllability received criticism from Rudanko (1984, 1989). Rudanko’s (1989, 73) counter-examples show that statives can be commonly used

after infinitives but do not denote control; and also that Riddle's time reference is not convincing enough.

Disagreeing with Riddle, Rudanko (1989) argues that controllability has close ties with thematic roles, Rudanko (ibid., 83-84) further endorses Bresnan's suggestion that *that*-clauses are more specific and more definite when compared to *to*-infinitives.

Verspoor (1999) emphasizes on the directness of *to*-infinitives and non-directness of *that*-clauses with two kinds of verbs, namely, epistemic and deontic verbs. She points out that epistemic verbs are verbs of opinion, such as *know*, *believe*, *consider*, etc; and deontic verbs are verbs of wanting, e.g. *order*, *make*, etc.

Verspoor notes that, for *that*-clauses, "with an epistemic verb it expresses that an opinion is not based on direct personal or experimental knowledge. With a deontic verb, a *that* clause expresses an order that is not directly given to the subject of the *that* clause," and for *to*-infinitives, "with an epistemic verb it expresses that an opinion is directly based on some personal or experimental knowledge and the *to* expresses that X is moving towards a categorical state Y. With a deontic verb it expresses that there is some direct contact between the subject of the main clause and the subject of the complement clause" (ibid., 525).

However, Verspoor's observation is rejected by Egan (2008). In his work discussing non-finite complementation, drawing examples from "pretend *to*-infinitive" construction, Egan (ibid., 73) states that Verspoor's interpretation of directness in *to*-infinitive constructions applies to forward-looking verbs, but not general and judgment constructions; Egan (ibid., 73-75) further rejects the immediacy of *–ing* forms. Taking "intend + *to*-infinitive" and "intend + *–ing*" as examples, Egan notices that "intend + *–ing*" is used when a directness in causation between the matrix subject and the situation in the complement is involved, while "intend + *to*-infinitive" can be used when "the realization of the complement situation is precluded" (ibid., 75), thus rejecting Verspoor's observation that *to*-infinitives involve directness.

Egan (2008, 19) introduces his own classification of verbs based on two parameters: 1) the semantics of the matrix verb (differentiating between same subject and different subject verbs), and 2) Tense-Aspect-Modality relationship between the matrix verb and the situation in the lower clause. Egan categorizes *urge* into the Forward-looking Different Subject Communication category (ibid., 404). Egan, however, does not discuss finite complements, and I do not go into detailed introduction of Egan's classifications, as the terms of the category are self-explanatory.

4 The verb *urge* in dictionaries and grammars

After setting the foundation in the previous chapters before the actual discussion of the verb *urge,* I turn to this verb in specific. According to the *Oxford English Dictionary, urge* is derived from the Latin word *urgere,* which means "to press hard, push, drive, compel, etc." *Urge* is first used in the English language during the 1550s. This thesis focuses on *urge* from 1710 to present day.

In the sections to follow, I start by consulting a number of notable grammars and then move on to *urge* as recorded in dictionaries. A fuller picture of this verb can emerge, before I move on to my own data.

4.1 Grammars

This section focuses on discussions of *urge* in notable grammars. Four grammars, namely, Quirk et al. (1985), Biber et al. (1999), Huddleston & Pullum (2002), and Poutsma's *A Grammar of Late Modern English* (1904-1929) are consulted.

Two main types of complement patterns for the verb *urge* are discussed in Quirk et al. (1985). *Urge* is categorized as a suasive verb. It is a category that "implies intentions to bring about some changes in the future, whether or not these are verbally formulated as commands, suggestions, etc" (ibid., 1980). Suasive verbs can be followed by a *that*-clause with an indicative verb, putative *should*, or mandative subjunctive. Indicative verbs followed by the *that* complementizer occurs especially in British English. Moreover, Quirk et al. state that "the noun phrase + infinitive construction is a common alternative to the *that*-clause for suasive verbs" (ibid., 1182). Two examples are provided with the verb *intend* (ibid., 1183), and Quirk et al. note that sentence (2), the putative *should* is the more formal option.

(1) They intended the news *to be* suppressed.
(2) They intended that the news (*should*) *be* suppressed. (more formal)

Urge can also have NP + *to*-infinitive to introduce indirect directives (ibid., 1215). However, Quirk et al. note that there are verbs, such as verbs of liking and wanting, also take NP + *to*-infinitive, but the NPs in this construction are different. Although not mentioned by Quirk et al., according to the control and raising theory, verbs of liking and wanting with NP + *to*-infinitive complement pattern involve raising-to-object construction; while for *urge*, this pattern involves object control.

Turning now to Biber et al. (1999), *Urge* is categorized as a communication verb. Three types of complement patterns of *urge* are identified in Biber et al.:

(i) *that*-clauses;

(ii) in the the Longman Spoken and Written English Corpus, *urge* occurs only in the pattern NP + *to*-infinitive or its corresponding passive. *Urge* does not occur in *to*-infinitive clauses without the object NP (ibid., 710);

(iii) in the LSWE Corpus, *urge* + *ing*-clause pattern is attested (ibid., 742). However, no specific example sentences are given.

Poutsma's (1904-1929) research shows that *urge* can take both *to*-infinitives and –*ing* forms. He notes that *urge* can take NP + *to*-infinitive, and *urge* can also take *upon* + NP + *on* + *to*-infinitive, as in:

(3) He urged upon me to be instant in my prayers (*Kidnapped*, 12).

Poutsma asserts that when there is no personal pronoun object, the verb *urge* requires the –*ing* construction (1904-1929, 671), and when there is a personal pronoun as object, *urge* requires the *to*-infinitive construction (1904-1929, 614). Sentence (4) involving –*ing* form is from Poutsma (ibid.).

(4) A few of the committee had urged hanging him as a possible example (Bret Harte, 19).

When discussing performative use of verbs, Huddleston & Pullum (2002, 860) categorize *urge* as a verb that can be used performatively, "to effect the performance of the illocutionary acts." *Urge* is also categorized as a mandative verb that licenses mandative clauses (ibid, 999).

Huddleston & Pullum illustrate three types of mandative clauses: subjunctive mandative, *should*-mandative, and covert mandative. The covert mandative and the indicative mentioned by Quirk et al. (1985) refer to the same construction. The following sentences taken from Huddleston & Pullum (ibid., 995) illustrate the types of mandative clauses:

> They demand(ed) [that the park remain open]. (subjunctive mandative)
> They demand(ed) [that the park should remain open]. (*should*-mandative)
> They demand [that the park remains open]. (covert mandative)
> They demanded [that the park remained open]. (covert mandative)

Huddleston & Pullum also note that, apart from mandative clauses, *urge* readily takes ordinary, non-mandative content clauses. For non-mandative clauses, the two authors (ibid., 996) give three examples, and below are two of them:

> She insisted [that he had been lying].
> I suggested [she doesn't like us very much].

Furthermore, Huddleston & Pullum (2002, 1233) categorize *urge* as a catenative verb, appearing in the complex construction NP + *to*-infinitive. In other words, the characteristic of *urge* is such that it takes infinitival but not gerund-participle constructions, and it involves a plain-complex construction with an ordinary object. The authors of the grammar give the example sentence "She urged me to go." to illustrate the complement pattern.

To sum up, complement patterns that *urge* takes that are mentioned by Huddleson & Pullum (2002) are:

(i) mandative or non-mandative *that*-clause;

(ii) NP + *to*-infinitive.

Huddleston & Pullum (ibid.) particularly point out that *urge* does not take *–ing* forms, and this contradicts Biber et al.'s (1999) corpus findings which state that the *–ing* form is found in the LSWE corpus. Huddleston & Pullum (2002) further contradicts Poutsma's findings. The discussions of the *–ing* complement by Quirk et al. does not include the verb *urge*. However, all the

authors of the four grammars concur with the NP + *to*-infinitive pattern that *urge* can take, while they only disagree on the *–ing* form.

Regarding the presence of the NP in the NP + *to*-infinitive pattern, the majority of the four grammars does not allow the omission of the object NP when *urge* is in an object control construction, except that Poutsma's stance on the presence of the object NP is more liberal.

A common pattern that the four grammars agree that *urge* can take is the *that*-clause pattern. Although Poutsma does not provide any discussion of the compatibility of *urge* with *that*-clauses in his grammar book, he notices that *urge* can take *that*-clauses in an unpublished dictionary of his, which is to be discussed in the sections to follow.

4.2 *Urge* in the Oxford English Dictionary

The Oxford English Dictionary (*OED*) provides a detailed list of senses on the verb *urge* and the corresponding example sentences under each sense. Under the verb *urge* entry in the *OED*, there are four major groups of senses, with each sense group governing a varying number of sub-senses. Among the 11 total sub-senses, authentic historical sentences presented in the *OED* stretch from a timeframe of three and half centuries: with the earliest example from the year 1560 and the latest example from the year 1907. The *OED* also records four obsolete senses which are marked with an obelisk or "dagger" symbol (†).

The table below is a summary of the verb *urge* entry in the *OED*. It illustrates each sub-sense with its *OED* sense explanation, an example sentence taken from the *OED*, and the complement pattern of the example sentence. It is worth noting that all passive patterns of *urge* are analyzed in its corresponding active form.

Sense		Example	Complement pattern
I	**1.a.**To bring forward, present; or press upon the attention (a fact, reason, argument, etc.)	[He] urged his weak health, as rendering it necessary he should travel very leisurely. (S. Lee,	NP

	in an earnest manner; to please with or by way of argument or excuse; to allege, affirm, or state, esp. in justification, extenuation, or defense.	1798) It was urged..that the servants..ought not to be deprived of such precious advantages. (J. Mill, 1817) So far from being an Advocate for the present Prisoner, she urged his Guilt to his Officer. (H. Fielding, 1749)	 *that*-clause NP + *to* + NP
	2.a. To advocate or advise earnestly (some course of action, etc.); to press with importunity, claim or demand pressingly.	The many, which were all eager to urge a course that… he would have been the first to follow, but [etc.]. (G.P.R. James, 1831) The Lord Chancellour… is to urge of them the oath of supremacie. (Reg. Privy Council Scotl., 1661)	NP *of* + NP + NP
II	**3.a.** To entreat or plead with (a person) pertinaciously; to importune, press, or ply with arguments or strong persuasion; to prompt, solicit, or request earnestly. **†3.c.** To charge strongly with something.	Seneca..urged the Emperor to summon him into his presence. (F. W. Farrar, 1891) Speakinge to his wife, he urgethe her that she cannot denye yt. (F. Thynne, 1599)	NP + *to*-infinitive NP + *that*-clause
	4.a. To serve or act as a constraining influence on (something); to bear pressingly on; to spur, actuate, or constrain. **†4.b.** To treat (a mineral, etc.) with great heat.	More I may say to you, then any mans mynde is urged to accomplishe. (A. Fleming tr. Cicero, 1576) To urge an ore with intense heat. (Webster, 1828-32)	NP + *to*-infinitive NP
III	**5.** To hasten or press forward (a proceeding, enterprise, etc.); to prosecute with effort, energy, or vigor; to push forward.	Urge your Success, deserve a lasting Name. (Earl of Roscommon, 1684) The bills which the Commons were urging forward. (T. B. Macaulay, 1855)	NP NP + *forward*

	6.a. To press forcibly in some direction; to force or impel forward or onward; to drive.	For Menelaus..the spear urged through his breast. (W. Cowper tr. Homer *Iliad,* 1791)	NP + *through* + NP
	6.b. To cause to move, hasten, or gather speed; to accelerate the pace of; to speed up.	With tighten'd Rein, I'll urge thee round the dusty Plain. (F. Fawkes tr. Anacreon Odes in tr. Anacreon, 1760)	NP + *round* + NP
	6.c. To press or pursue (one's flight, way, the chase); to hasten or accelerate (one's pace, etc.)	He had several motives to urge his progress. (C. Thirlwall, 1840)	NP
	7.a. To stimulate to expression or action; to provoke or excite; to increase or intensify.	All his spite my Tempter urges. (J. M. Neale, 1865)	NP
	7.b. To provoke to anger; to irritate or annoy	This is it that urgeth me that I fall into his hands. (T. Lodge, 1593)	NP + *that*-clause
	8. To ply vigorously; to use, work, or employ briskly or diligently.	Both urge their oars. (Dryden tr. Virgil *Æneis* v, in tr. Virgil Wks., 1697)	NP
IV	**9.a.**To press by inquiry or statement; to adduce or bring forward argument, allegations, etc.	When she had no company at home, he would urge to go and seek it abroad. (*Something Odd*, 1804)	*to*-infinitive
	9.b. To press solicitously, make a strong claim, for something.	That wicked faction…, not content with all those marks of his justice…, urged still for more. (Swift serm. Martyrdom King Charles, a1745)	*for* + NP
	†**9.c.** To strive for (mastery).	His lovely Countenance, where the Lilly and the Rose did urge for Mastery. (A. Gavin, 1691)	*for* + NP
	10. To press, push, or hasten on.	Through all this he shall urge onward, till [etc.] (S. Winkworth, 1857)	*onward*
	11.a. To act as an impelling or prompting motive, stimulus, or force; to incite or stimulate; to exercise pressure or constraint.	The Combate urges, and my Soul's on fire. (Pope tr. Homer, 1716)	∅

	†11.b. To be of weight or importance.	A syllogism leading to absurdity, much urgeth in disputing. (Z. Coke, 1654)	*in* + *-ing*.

Table 3: *Urge* in the *OED*

The above table, illustrated with detailed senses, is not a complete list of the types of patterns each sense takes. According to my survey, the *OED* lists altogether 32 types of complement patterns that *urge* takes. Patterns that are not illustrated in Table 3 are given below: poss. + *-ing*, direct speech, *to* + NP + direct speech, *wh*-clause, NP + *from* + NP, *upon* + NP + NP, *on* + NP + NP, NP + *onward*, *of* + NP, NP + *against* + NP, NP + *away*, NP + *towards* + NP, Np + *around* + NP, NP + *up* + *to* + NP, *against* + NP, *upward*, and *along*.

The complement patterns obtained from the *OED* entry show that *urge* takes sentential *that*-clause, *wh*-clause, NP + *to*-infinitive, and *to*-infinitive complements, as well as a fairly good number of non-sentential complement patterns such as NPs and various AdvPs.

It is worth noting that the *OED* includes the *to*-infinitive pattern for *urge*. As I recall the disagreement among the four grammars consulted earlier, the presence of the object NP is required by most of the grammars, except that Poutsma allows the omission of the object NP. The *OED*'s example sentence also evokes interesting discussions on Bach's Generalization, which requires the presence of the object NP in object control constructions. Aspects of Bach's Generalization will be explored in my data analysis.

With a close inspection of the *OED* data, it is not difficult to see that certain unique complement patterns occur only with certain senses. However, with some *OED* sub-senses being very close to each other and having only subtle differences, there is also a great overlap of patterns under senses. To gain a better understanding, I consult four other dictionaries as supplementary sources.

4.3 *Urge* in other dictionaries

4.3.1 Dictionary of Constructions of Verbs, Adjectives, and Nouns

Poutsma's *Dictionary of Constructions of Verbs, Adjectives, and Nouns* (unpublished) lists 14 types of complement patterns that *urge* takes.

Complement Pattern	**Example**
NP	Do not urge her, madam. It is not fair to urge her in this manner (Jane Austen, *Mansf. Park*, Ch. XV).
Direct speech	"Father," urged the maiden (to the monk), ..."our daily alms have been distributed." (Dick., *Nick.*, Ch. VI)
That-clause	It was urged … that the servants … ought not to be deprived of such precious advantages (Jas. Mill, *Brit. Ind.*, II Ch. V, 217)
-*Ing*	A few of the committee had urged hanging him as a possible example (Brett Hart, *Outcasts*, 19).
Poss. + -*ing*	At least he urged your taking presents of him (Farquhar, *Const. Couple*, V, 3)
NP + *against* + NP	The plaints which have been urged against him (Con. Doyle, *White Comp.*, 4)
For + NP	He again urged for her hand, and for a private marriage (Richardson, *Grandison*, II, CH. IX, 60)
NP + *through* + NP	I should have to urge my way through the works of our best writers (R. Miller, *Sch. & Schm.*, Ch. XVI, 340)
NP + *to* + NP	His appearance on earth is to urge his son to vengeance (Deighton, *Introd. to Shak. Haml.*, XI, 2)
NP + *to*-infinitive	His friends urged him at once to decline Merlino's proposal (Edna Lyall, *Knight Er.*, CH VIII, 66)
NP + *upon/on* + NP	Not only pardon but advancement was urged upon him again and again (Morley, *Rise*, Ch. VII, 899)
On + NP + *wh*-clause	They came to urge on him what he was bound to do for poor Bessie's sake (G. Eliot, *Mill*, III, Ch. IX, 240)
Upon + NP + *to*-infinitive	You urge upon me to marry Colonel Gwynn? (Frankf. Moore, *Jessamy Bride*, Ch. XXXI, 294)
NP + *up* + *to* + NP	Coachmen were urging their horses up to the door (Violet Jacob, *Sheep-stealers*, Ch. IX)

Table 4: Complement patterns of *urge* identified in the *Dictionary of Constructions of Verbs, Adjectives, and Nouns* (unpublished).

There is a large overlap in complement patterns between the *OED* and Poutsma's dictionary, and the only disagreement between the two dictionaries lies in the *–ing* form. The *OED* does not take the *–ing* form into complement consideration for *urge*, and *in* + *–ing* is recorded as obsolete by the *OED*; whereas Poutsma considers the *–ing* form as a complement option for *urge*.

4.3.2 The Collins COBUILD Advanced Learner's English Dictionary

Under the verb *urge* entry, three senses and a phrasal verb are given by the Collins COBUILD Advanced Learner's English Dictionary (COBUILD for short).

Sense	**Complement Pattern**
1. If you urge someone to do something, you try hard to persuade them to do it.	NP + *to*-infinitive
2. If you urge someone somewhere, you make them go there by touching them or talking to them.	NP + Prep/Adv
3. If you urge a course of action, you strongly advise that it should be taken.	NP + *on* + NP NP
URGE ON. If you urge someone on, you encourage them to do something.	Urge + NP + on Urge + on + NP (not pronoun)

Table 5: Complement patterns of *urge* in COBUILD.

COBUILD lists the phrasal verb *urge on* separately. Phrasal verbs are not included in the scope of complement patterns in this thesis, either.

The three brief senses given by COBUILD are particularly clear, and the given patterns associated with the senses are all covered by the *OED*.

4.3.3 Valency Dictionary of English

Distinct from the dictionaries consulted, the Valency Dictionary of English provides an "umbrella" sense that covers most of the complement patterns: A person or an institution can urge a particular course of action on a person or institution, or urge somebody to do something they think right, i.e. strongly recommend them to do that. This sense takes NP, *that*-clause, quote, NP + *to*-infinitive, NP + *on*/*upon* + NP, and a rare pattern *upon* + NP + *that*-clause.

The second sense provided by the dictionary is: a person can urge a person or an animal somewhere, i.e. make them go there. The pattern associated with this sense is NP + Adv.
In addition to the above, the Valency Dictionary of English also gives the idiomatic phrasal verb *urge on*.

At this point, little difference in complement patterns can be discerned between COBUILD and the Valency Dictionary of English. The only exception is that the Valency Dictionary of English identifies a rare pattern *upon* + NP + *that*-clause, which is neither included in the COBUILD dictionary nor earlier mentioned dictionaries.

The senses provided by the two different dictionaries, however, also largely overlap with each other. The agreement on the division of the senses mainly depends on the lexicographer.

4.3.4 Oxford Advanced Learner's Dictionary

Next, I move on to the last dictionary, Oxford Advanced Learner's Dictionary (OALD for short). The three senses under the verb *urge* entry overlap with the COBUILD.

Sense	**1.**To advise or try hard to persuade somebody to do something:	**2.**To recommend something strongly	**3.**To make a person or an animal move more quickly and/or in a particular direction, especially by pushing or forcing them (formal)
Complement Pattern	NP + *to*-infinitive *that*-clause (NP) + quote	NP + (*on*/*upon* + NP)	NP + Adv NP + Prep

Table 6: Complement patterns of *urge* in the OALD.

Not included in the above table is the phrasal verb. It becomes clear that, in contrast to the *OED*'s 11 sub-senses under four large groups, some senses can be combined and simplified as an important reference for data processing in later chapters of this thesis.

4.4 Combined and simplified senses

Taking all five dictionaries into consideration, I simplified the *OED* senses by incorporating the senses provided by other dictionaries.

Disregarding the obsolete senses, the *OED* senses 1.a., 9.a., COBUILD sense 3, and OALD sense 2 are combined together as simplified Sense 1; *OED* senses 2.a., 3.a., 9.b., COBUILD sense 1 and OALD sense 1 are combined as simplified Sense 2; *OED* senses 5, 6, 10, COBUILD sense 2, and OALD sense 3 are combined as simplified Sense 3; *OED* senses 4.a., 7 and 11.a. are under simplified Sense 4, and the *OED* sense 8 forms a unique group of its own. The table below illustrates the modified sense groups. The sense of the *–ing* form is categorized into sense 2 based on Poutsma's example sentence and his comment in his grammar that when there is no NP object in the NP + *to*-infinitive, the *-ing* form is required.

Simplified Sense	**Associated Patterns**
1. To bring forward, state, or present facts, arguments, allegations, etc.	NP poss. + *–ing* *that*-clause *upon* + NP + *that*-clause NP + *that*-clause *wh*-clause *on* + NP + *wh*-clause *to* + NP + direct speech direct speech *to*-infinitive NP + *on*/*upon*/*against* + NP *against*/*upon*/*on* + NP + NP NP + *to* + NP ∅
2. To advise, persuade, or importune	NP + *to*-infinitive *-ing* *upon* + NP + *to*-infinitive NP NP + *to* + NP NP + *from* + NP NP + *onward* *for* + NP *of* + NP + NP

	∅
3. To hasten or press forcibly in a particular direction	NP NP + *to*-infinitive NP + *against* + NP NP + *through* + NP NP + *towards* + NP NP + *forward* NP + *away* NP + *round* + NP NP + *around* + NP NP + *up* + *to* + NP *upward* *onward* *along* ∅
4. To stimulate, incite or to exercise pressure or constraint	NP *of* + NP NP + *to*-infinitive ∅ *to*-infinitive
5. To ply, use, or work vigorously	NP

Table 7: Simplified senses and their associated patterns

In Table 7, each simplified sense has its own associated pattern(s). The associated patterns are directly taken from each sub-sense of the *urge* entry in the OED, COBUILD, and OALD. The NP + *to*-infinitive pattern, for example, occurs in simplified senses 2, 3, and 4. The following example sentences (i), (ii) and (iii), taken from the *OED*, exemplify the subtle difference of the sense with this pattern. Example (i) takes simplified sense 2; example (ii) belongs to simplified sense 3, although the NP + *to*-infinitive pattern is not a prototypical pattern for this sense; sentence (iii) takes sense 4, and its subject implies a certain degree of abstractness.

(i) Senece … urged the Emperor to summon him into his presence (F.W. Farrar 1891, *Darkness & Down*).
(ii) Now we of our side urge them to retreat, and now before them we retire as fast (T. Kyd tr. R. Garnier 1594, Cornelia).
(iii) But love of him … did urge her resolution to be such (T. Kyd 1592, *Spanish Trag*.).

Needless to say, the above merging process does involve arbitrary judgments, however, the arbitrary regrouping of senses is based on objective surveys of senses in different dictionaries, and simplification and regrouping of senses provides convenience and clarity without losing the authoritative background.

Summing up the simplified senses, senses 1, 2, and 3 are the more basic senses of *urge*, with sense 3 having a spatial indication; sense 4 has a strong metaphorical interpretation; and sense 5 is fairly rare.

5 Corpus analysis

This chapter focuses on corpus data analysis. In chronological order, I start by treating data from the first part of the CLMET and move on to the third part, with these two sets of data concluding the Late Modern English period. I then proceed to the BNC data. The three sets of data together comprise a sufficient treatment from the Late Modern English to Present-day English, with two gaps of 70 years in 1780 – 1850 and 1920 – 1990.

5.1 Methodology

To begin the corpus analysis, I repeat the purposes of this thesis stated earlier in the introduction.

(i) categorizing the types of complements that *urge* takes and identifying complement shifts over the past 3 centuries;

(ii) comparing the relation between the syntactic and semantic aspects of the verb *urge,* while taking the immediate environment in which *urge* occurs into consideration.

Before proceeding to data analysis, relevant data is first retrieved from the two aforementioned corpora. Simple searches with the word forms *urge*, *urged*, *urging*, and *urges* are used for collecting data from the CLMET; while for the BNC, the search string {urge}_V* is used. Within each set of retrieved data, irrelevant tokens (if any) are first discarded. The rest of the tokens are reorganized according to the type of complements they take, with frequencies of each complement type calculated. Simplified senses of *urge* are assigned to each token individually. Non-sentential and sentential complements are discussed in separate subsections from syntactic as well as semantic aspects. Possible correlation between senses and complement patterns will be noted. At the end of each set of data analysis, a review connecting earlier literature with my own data findings is provided.

5.2 *Urge* in the CLMET 1710 – 1780

The first part of the CLMET (version 3.0) stretches from the year 1710 to 1780. The basic form of *urge* and its inflections *urges*, *urging*, and *urged* are searched for in this part of the corpus. Due to the large number of tokens retrieved in the corpus, 33.3% of the retrieved tokens are taken as a sample for the purpose of this study. Altogether 270 tokens are retrieved, with 63 in the form of *urge*, 176 in the form of *urged*, 8 in the form of *urges*, and 23 in the form of *urging*. After preliminary treatment of the tokens, only one duplicate token under the *urged* form and 3 tokens involve the phrasal verb *urge on* are discarded.

Among the 266 relevant tokens, 21 different complement patterns and zero complement are found, as shown in the table below.

Complement	***urge***	***urged***	***urging***	***urges***	**Total**	**Percentage**	**Normalized frequency per million words**
NP	35	75	12	1	123	46.2%	35.6
NP + *to*-inf.	4	39	1	4	48	18.0%	13.9
that-clause	3	27	3	1	34	12.8%	9.8
NP + *to* + NP	6	9	1	1	17	6.4%	4.9
NP + *against* + NP	1	10	2	1	14	5.3%	4.0
NP + *on* + NP	-	3	1	-	4	1.5%	1.2
to + NP + NP	2	1	-	-	3	1.1%	0.9
NP + *farther*	3	-	-	-	3	1.1%	0.9
upon + NP + NP	1	-	1	-	2	0.8%	0.6
NP + *upon* + NP	-	2	-	-	2	0.8%	0.6
NP + *forward*	1	1	-	-	2	0.8%	0.6
NP + *that*-clause	-	1	-	-	1	0.4%	0.3

to + NP + *that*-clause	-	1	-	-	1	0.4%	0.3
wh-clause	1	-	-	-	1	0.4%	0.3
poss. + *-ing*	-	1	-	-	1	0.4%	0.3
direct speech	-	1	-	-	1	0.4%	0.3
NP + *further*	-	1	-	-	1	0.4%	0.3
upon + NP	-	-	1	-	1	0.4%	0.3
NP + *down* + NP	-	1	-	-	1	0.4%	0.3
NP + *from* + NP	-	1	-	-	1	0.4%	0.3
for + NP	-	-	1	-	1	0.4%	0.3
∅	4	-	-	-	4	1.5%	1.2
Total	**61**	**174**	**23**	**8**	**266**	100%	77.2

Table 8: Complement pattern distribution in the first part of the CMLET (1710 – 1780)

In descending order of the normalized frequency (with the zero complement listed at the bottom), the complement patterns are illustrated in Table 8 above. The most frequent pattern is the NP pattern. The least frequent patterns involve AdvPs, as well as *wh*-clauses, direct speech, etc. A

more comparative chart illustrating the absolute numbers of major types of complement is given below.

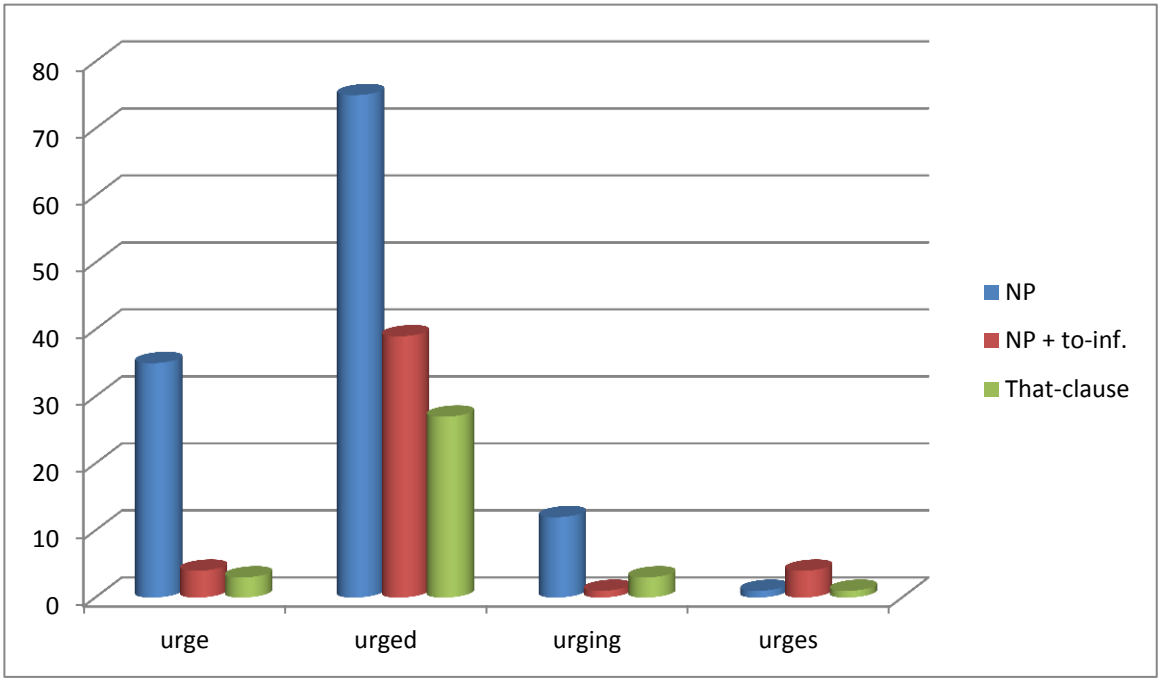

Figure 1: Number of major complement patterns (the number scale on the left represents the absolute number of that complement pattern.)

5.2.1 Non-sentential complements

As stated previously, NP complement is the most frequent complement pattern. Among the 123 tokens that take NP complements, 47 of the tokens involve the passive construction. Passivized constructions are analyzed in their corresponding active forms.

In a passive construction, the NP complement is extracted to clause initial, leaving the verb *urge* behind it and a trace after *urge*. Two types of passives are found with NP complements: one is the bare passive, as in sentence (1).

(1) He took my hand, in a kind of good-humored mockery, and said, well urged, my pretty preacher! (Richardson 1740, *Pamela*).

In sentence (1), the NP complement is merely implied and not spelled out. Ten tokens in the data take the form of the bare passive. A second type of passive, the *be*-passive, is demonstrated in (2) below. *Be*-passive is also the most frequent type of passive form in the retrieved data, with 37 tokens in the *be*-passive form.

(2) …notwithstanding the great authority of Dryden can be urged in its defense. Writing plays upon the model of the ancients, by introducing choruses… (Cibber 1753, *The Lives of the Poets of Great Britain and Ireland*).

In the corresponding active form of sentence (2), the NP "the great authority of Dryden" is a complement of *urge*, and the position of the NP in its passive form has no bearing on the fact that it is the logical complement of the verb. The sense of *urge* in this sentence is closest to simplified sense 1, "to bring forward, state, or present."

Apart from passivization, other forms of movement, namely relativization and interrogation, are also identified in this part of the data. Two different forms of movement can co-occur.

(3) …This seems to be a full and sufficient reply to all <u>that</u> can be urged in support of this fantastic system from a view of human nature… (Brown 1751, *Essay on the Characteristics*).
(4) …and after you have heard what your friends shall further urge in his behalf, unhardened by clandestine correspondences, you shall convince them, that … (Richardson 1748, *Clarissa*).

Sentence (3) involves passivization, and at the same time, the complement NP is the extracted relative pronoun *that*. In sentence (4), the complement NP *what* also undergoes extraction. In the retrieved data, *wh*-extraction occurs once with *urge* and 6 times with *urged*. *Urge* belongs to sense 1 in both sentences (3) and (4). Relativization in an NP complement construction is not rare, with 5 tokens with *urge*, 8 tokens with *urged*, 1 token with *urges*. Relative pronouns *that* and *which* are found in the data, and there are also 2 cases when the pronoun *that* is omitted, as in (5):

(5) … which I held fast locked in my arms; finding me deaf to all he could urge, he was obliged to use force; they dragged me from the lovely body into my own cell … (Lennox 1760-1, *The Lady's Museum*).

Six tokens in the data involve interrogation extraction. Sentence (6) below is an example of them.

(6) If I should, therefore, allow, what has been urged, that there is no precedent of a bill like this, what can be inferred from it … (Johnson 1740-41, *Parliamentary Debates*).

Insertions between the verb *urge* and the NP complement occur with 4 tokens. A common type of insertion is a term of address, e.g. "sir", "my lord", etc., inserted between the extracted NP complement and the passivized *urge* or *urge* in an interrogation sentence. In sentence (7) below both "my lords" and "so frequently" are inserted between the extracted NP and the verb *urge*.

(7) Nothing, my lords, was so frequently urged, or so warmly exaggerated, as the impossibility of procuring evidence against a man in power … (Johnson 1740-41, *Parliamentary Debates*).

One rare token (represented as (8) below), which involves an archaic imperative expression, is found in the data. The spelled-out pronoun "thou*"* is not a complement NP of the verb *urge*, so only the NP "these arguments" is considered the complement here. The sense of *urge* in (8) belongs to sense 1.

(8) …yet expect the woman to be guiltless, and even unsuspectible? Urge thou not these arguments, I say, since the wife, by a failure, may do much more injury to the husband… (Richardson 1748, *Clarissa*).

Regarding thematic roles, the NP complements that *urge* takes can be either a patient or a theme; and the subjects of *urge*, whether spelled out in words or vaguely implied, can either be agents or causers. The following four tokens demonstrate different types of thematic roles that NP complements take, as well as the different thematic roles of the subject NPs.

(9) The Captain urged her in my favor with greater earnestness than before. We both even clamored … (Richardson 1748, *Clarissa*).
(10) … but convert the unworthy passion you have dared to urge, to pity – Alas! I dare not say… (Griffith 1771, *The History of Lady Barton*).
(11) … Since they had neither competitors to urge their speed, nor judges to crown their victory… (Gibbon 1776, *The Decline and Fall of the Roman Empire*).
(12) … Now the sense and their attendant passions are continually urging their demands, through the immediate presence of their respective objects… (Brown 1751, *Essay on the Characteristics*).

In sentence (9), the NP complement "her" takes the patient role assigned by the verb *urge*; the semantic feature carried by the patient is [+HUMAN]. The sense of *urge* here falls under sense 2 "to advise, persuade, and importune." The subject NP "the captain" is assigned an agent role by *urge*. In (10) and (11), the NPs "the unworthy passion" and "their speed" are themes, and they are [-HUMAN], and to be more precise, they are [-ANIMATE]. The subject NP "you" in (10) and "competitors" in (11) are [+HUMAN] agents. *Urge* in sentence (10) comes closest to the first part of sense 4, "to stimulate, to incite," while in (11) *urge* has a directional suggestion, and it belongs to sense 3 "to hasten or press forcibly in a particular direction." In sentence (12), the subject NP "the

sense and their attendant passions" and the complement NP "their demands" are both [-ANIMATE]. The subject NP denotes abstract concepts, and it is a causer, as it is not a volitional agent. The sense of *urge* in sentence (12) is similar to that of sentence (10), so they both belong to the first part of sense 4.

To sum up the above discussion, it is noticed that when the complement NP and the subject NP of *urge* are both [+HUMAN], the meaning of *urge* comes closer to its basic senses, such as sense 1, 2, or 3; and when the complement NP and the subject NP are both [-ANIMATE] abstract concepts, the meaning of *urge* gets more figurative. However, when the [-ANIMATE] NP complement is represented with something more concrete, *urge* does not always imply the metaphorical meaning. Consider (13) and (14).

(13) … and their subjects, either by an ardent devotion to their own tribe, or in vehement animosity against enemies, and by a vigorous courage founded on both, are well qualified to urge, or to sustain, the fortune of a growing community. But the savage … (Ferguson 1767, *An Essay on the History of Civil Society*).

(14) … he says, "light the tapers, urge the fire." … (Walpole 1735-1769, *Letters*).

The interpretation of *urge* in (13) is ambiguous. Judging from the context, the author of the original text discusses about corruption and civic spirits, in arguing that corruption is not peculiar to nations in decline, the author believes that based on positive civic spirits, citizens are "well qualified to urge the fortune of a growing community". *Urge* can be interpreted as sense 4 here "to stimulate, incite", as an equivalence of the modern phrase "to stimulate the economy". Sentence (14) does not imply any metaphorical meaning of *urge*, but the actual action of kindling "the fire", and it takes sense 4.

Next I move on to other non-sentential complements of *urge*. Starting from the more frequent NP + *to* + NP pattern, 6 tokens of this pattern occur with *urge*, 9 tokens occur with *urged*, and one token occurs with *urging*, and one with *urges*. Movement constructions, such as relativization and passivization are found with 5 tokens.

(15) … If all he could urge, either to the pope or confessor, would have any weight to oblige them to relinquish you… (Haywood 1744, *The Fortunate Foundlings*).

Sentence (15) involves relativization. The omitted relative pronoun *that* is extracted out of the normal order of the sentence, and it leaves a trace behind the verb *urge*. The omitted *that* is also the first NP (the NP preceding the preposition *to* in the NP + *to* + NP pattern), and it is assigned a theme role by *urge*, denoting [-ANIMATE] feature. "To the pope*"* serves as the goal. The subject NP "he" gets an agent role from the verb *urge*. The sense of *urge* in (15) is closest to sense 1.

One token in this pattern, as shown in (16) below, has the first NP extracted by topicalization.

(16) .. this article, then, I urge to your most serious consideration, as what lies next my heart… (Richardson 1748, *Clarissa*).

Sentence (17) demonstrates the passive construction of *urge* in this pattern.

(17) … it will appear, that they were much oftener driven into rebellion by their fears, than urged to it by their ambition. They dreaded the cruel suspicions of Gallienus… (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

To simply paraphrase the passivized part involving *urge*, sentence (17) can be turned into "their fears drove them into rebellion much oftener than their ambition urged them to it…" The structure of NP + *to* + NP with *urge* becomes clear. The first NP "them*"* is a [+HUMAN] patient, and "to it*"* is the goal. The subject NP "their ambition" takes the causer role. *Urge* belongs to sense 4 in (17).

Generally, the first NPs (NPs preceding the preposition *to*) in the NP + *to* + NP construction are either patients or themes. The "*to* + NP" part is assigned the goal role by *urge*. The subject NPs which are not counted as complements can be [-ANIMATE] causers or [+ANIMATE] agents.

Structural discontinuity also occurs with this pattern. In (17), the long insertion between the first NP "me" and "to an attempt" interrupts the continuous structure.

(18) They again urge me, since it is so difficult to make night my friend, to an attempt in the day (Richardson 1748, *Clarissa*).

A similar non-sentential complement pattern to NP+ *to* + NP is *to* + NP + NP pattern. This pattern yields 3 tokens. Sentence (19) is an example of this pattern. The sense of *urge* here belongs to sense 1. This pattern is not identified in the dictionaries consulted.

(19) the … that you yourself urged to your dear cousin her forgiveness of him. Let me also … (Richardson 1748, *Clarissa*).

NP+ *against* + NP pattern has 1 token with *urge*, 10 tokens with *urged*, 2 tokens with *urging*, and 1 token with *urges*. Seven tokens involve passivization and relativization, and among these seven tokens, three of them involve both constructions. One interesting token occurs in the *have*-passive.

(20) … and obliged to retire to her cell; after having this reflection urged against her, that it must be always more natural to suppose children to be undutiful or ungrateful,… (Griffith 1771, *The History of Lady Barton*).

In (20), the sense of *urge* falls under sense 1. The first NP in the sequence NP+ *against* + NP in (20) is "this reflection". A number of first NPs that occur repeatedly in this pattern include: objection, arguments, reason, charge, the contrary, etc. It is worth mentioning that, all the tokens occurring in NP + *against* + NP pattern belongs to sense 1 group.

NP + *on* + NP pattern occurs 4 times. The sense of *urge* in (21) is close to sense 3 in general. The second NP "this head" repeatedly occurs 4 times in the data.

(21) …You must make recovery of his health the motive for urging him on this head; for, if you hint at his own safety, he will not stir, but rather seek the Colonel… (Richardson 1748, *Clarissa*).

Recalling the previous chapter on dictionaries, it is pointed out that *upon* can replace *on* in the NP + *on* + NP pattern. In the data, two tokens of the NP + *upon* + NP pattern, both occurring in the form *urged,* are identified. Both tokens are in their passive form; with one token also having a phrasal insertion. It is understood that perhaps more complex and formal environments are more likely to attract the *upon* variation. However, two example tokens are too few to draw any conclusions here.

The *upon* + NP + NP pattern has 2 tokens:

(22) So, pray sir, urge not upon me this favor. – Take it up yourself (Richardson 1748, *Clarissa*).

(23) … and that then they will appear, in order to try to reconcile me to my odious husband, by urging upon me the obligations I shall be supposed to be under from a double duty (Richardson 1748, *Clarissa*).

Both (22) and (23) belong to sense 1. This pattern shares some similarities in sense with the NP + *upon* + NP pattern.

NP + *down* + NP, NP + *from* + NP, NP + *forward*, and *forward* + NP patterns are found to have only one token for each pattern. *Urge* in these locative AdvPs has a strong indication of direction, thus taking sense 3. An interesting but somewhat different example is sentence (24). The sense of *urge* here lies somewhere between sense 3 "to hasten or press forcibly in a particular direction" and the first part of sense 4 "to stimulate or incite." However, it is grouped into sense 4 despite the presence of the adverb *forward*.

(24) …and by a twinkling motion urged forward a tear or two, which having arisen in each sweet eye… (Richardson 1748, *Clarissa*).

The zero complement pattern has 4 occurrences with the form *urge* and 1 with *urging*. One token in this pattern occurs in an *as*-clause.

(25) If, as the stoics urge, all crimes be equal, why should not every vice shock our nature, as much as murder does? (Griffith 1764, *The Triumvirate*).

Without careful consideration, one can be easily tricked into taking sentence (25) occurring in a mandative *that*-clause pattern with the complementizer *that* being omitted. However, the constituent "as the stoics urge" merely serves as an insertion in the *if*-clause, thus, "all crimes be equal" is not a complement of *urge*.

The senses of *urge* with zero complements can be sense 1 and 2. *Urge* in sentence (25) above takes sense 1. In (26), according to the immediate context, *urge* takes sense 2.

(26) His numerous ministers of justice were posted behind the line, to urge, to restrain, and to punish; and if danger was in the front, shame and inevitable death were in … (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

5.2.2 Sentential complements

This sub-section focuses on NP + *to*-infinitives, *that*-clauses, *wh*-clauses, and other miscellaneous sentential complements.

5.2.2.1 NP + *to*-infinitive

The absolute number of sentential complements is smaller than that of the non-sentential complements. The most frequent sentential pattern NP + *to*-infinitive has 48 tokens, 39 of the tokens occur with *urged*, 4 with *urge*, and *urges* and *urging* each has one token in this pattern. The most notable syntactical feature of the NP + *to*-infinitive pattern is the passive form in the main clause. Altogether there are 12 tokens in the passive form.

(27) … he should no longer be urged to relinquish the enjoyment of happiness for the pursuit of power. In his conversation with … (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

Sentence (27) involves passivization. When analyzed in its corresponding active form, "he" gets a patient role from the verb *urge*, and "to relinquish the enjoyment…" is assigned a goal role. As discussed earlier, *urge* in the complement pattern NP + *to*-infinitive involves object control, and the lower clause has an understood subject PRO controlled by and co-referential to the object NP. Here the PRO is "he", and it gets an agent role from the lower verb "relinquish". *Urge* in (27) takes sense 2.

Furthermore, 11 tokens have insertions, 8 of which are prepositional *by*-phrases occurring together with the passivized *urge* as in example (28). Again here, "Theodoric" is the patient, "to revenge such irreparable injuries" is the goal, and "the feelings of a parent and a king" is a non-volitional causer. The understood subject PRO in the lower clause is co-referential to "Theodoric", and it gets an agent role from the lower verb *revenge*. The sense of *urge* here belongs to sense 4.

(28) … but Theodoric was urged by the feelings of a parent and a king, to revenge such irreparable injuries. The Imperial… (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

However, insertions are not always related to the passive *by*-phrase as in the two examples (29) and (30).

(29) He urged her, with a thousand remonstrances, to consult her own ease and safety, promising to send pipe in … (Smollett 1751, *The Adventures of Peregrine Pickle*).

(30) … He made no scruple to confess him flame even to me, urging me by all the arguments his wicked mind could suggest, to move the heart of Geneura in his favor… (Lennox 1760-1761, *The Lady's Museum*).

In (29) and (30), insertions indicating manner or means occur between the NP and the *to*-infinitive. As mentioned earlier that according to the Complexity Principle, clauses involving structural discontinuity tend to favor more explicit constructions. The finite *that*-clause is clearly more explicit in structure than the nonfinite *to*-infinitive. I should come back to this point when it comes to the analysis of *that*-clause complements that *urge* takes.

Complex structures in *to*-infinitives can occur in the NP + *to*-infinitive pattern as in (31) and (32). In the two aforementioned example sentences, a complex non-restrictive relative clause and a *wh*-clause are respectively embedded in the lower clause.

(31) … and even the care of their own safety urged them to share the fortune of an enterprise, of which (if unsuccessful) they were sure to be the … (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

(32) The various remarks I made (some dancing, some prancing… some stealing) urged my curiosity to enquire for what it was possible those noble sports might be ordained, and was soon … (Cibber 1753, *The Lives of the Poets of Great Britain and Ireland*).

In the NP + *to*-infinitive pattern, the subject NP in the main clause, whether implied or specifically spelled out, can be either a non-volitional causer or a volitional agent. The object NP in the main clause can similarly either be a patient or a theme.

(33) Hatred, indignation, and rage, frequently urge them to act in opposition to their known interest, and even to hazard their lives, without any hope… (Ferguson 1767, *An Essay on the History of Civil Society*).

(34) … the passion of contempt feeling an incongruity in the claim, urges the mind to reject it with laughter and contempt!" (Brown 1751, *Essays on the Characteristics*).

In (33) and (34), the higher subjects are [-ANIMATE] causers, and the object NPs in (33) is a [+HUMAN] patient and in (34) it is an [-ANIMATE] theme.

In the lower clause, the understood subjects PRO, which are co-referential to the controlling NP in the main clause, are in majority assigned an agent role by their lower verbs. Lower verbs that are identified in the data include: *consult, continue, precipitate, hasten, beg, take, meet, speak, make, punish, withdraw, serve, accept, secure, arm, invade, move, revisit, throw*, etc. However, in 2

tokens, the verb in the lower clause assigns thematic roles other than agents to its understood subject PRO.

(35) These truths, sir, added to the great objection I have to babble and noise, urge me to hope you will gently dismiss me from a post which can be no longer held with service to your … (Pratt 1779, *Shenstone-Green*).

(36) I have already been led into meanesses by this clandestine passion: it has urged me to desire Charlotte to forbear writing, under pretence of its interfering with my endeavors to… (Pratt 1777, *Charles and Charlotte*).

In (35) and (36), the verbs in the lower clause are *hope* and *desire*. The understood subjects in these two clauses are assigned experiencer roles. In (35), a bare *that*-clause is embedded in the lower *to*-infinitive clause.

5.2.2.2 *That*-clause

Next I move on to *that*-clause complements. This pattern has 34 tokens, with 3 occurrences with *urge*, 27 occurrences with *urged*, 1 occurrence with *urges*, and 3 with *urging*. Apart from the *that*-clause complement pattern, there are two more patterns also involving *that*-clauses: NP + *that*-clause pattern and *to* + NP + *that*-clause pattern. I will discuss the three patterns together under the *that*-clause pattern; however, calculations of these patterns are carried out separately. Both NP + *that*-clause complement and *to* + NP + *that*-clause complement has only one occurrence. The token in *to* + NP + *that*-clause pattern is represented as (37). There is a relative clause embedded in the *that*-clause in (37).

(37) When some persons urged to the then lord chamberlain, that there were authors who had better pretensions to the Laurel … (Cibber 1753, *The Lives of Poets of Great Britain and Ireland*).

With NP + *that*-clause pattern, the only identified token is provided below as (38). A relative clause is embedded in the *that*-clause. The *that*-clause is a mandative clause involving *should*.

(38) … and they strenuously urged the canons of St. Basil, that all who were polluted by the bloody trade of a soldier should be separated, during three years, from the communion of the faithful (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

Embedded relative clauses in *that*-clauses are also found with *that*-clause complements. (39) is an example of such construction.

(39) If it be urged, that the effects produced are data, from which, we can infer a cause by a process of reasoning… (Kames 1751, *Essays on the Principle of Morality and Natural Religion*).

It is worth noting that the sense of *urge* in complement patterns involving *that*-clauses commonly takes sense 1.

The *that*-clause pattern with *urge* in its passive form is common in the retrieved data. Altogether 23 tokens, around 67.6% of the tokens have a *that*-clause complement with *urge* in its passive form. Furthermore, it often appears in the following form:

(40) It has been urged, that there is danger lest this bill should become a precedent. (Johnson 1740-1741, *Parliamentary Debates*).

Sentence (40) has an expletive "it" as its subject and this NP is generated during extraposition. Taking Huddleston & Pullum's (2002, 964) treatment of extraposed subjects into consideration when analyzing tokens in this form, only the *that*-clause is considered as the complement and the expletive "it" is disregarded as a complement.

One further notable feature of *that*-clause complement is insertion. 18 tokens have insertions, and the length of the insertions vary from one word to a full sentence.

(41) It may be urged, my lords, I own, that all inquiries into futurity are idle speculations; that the expedient … (Johnson 1740-1741, *Parliamentary Debates*).

(42) It may be, perhaps, urged, (for indeed I know not what else can be decently alleged,) that there is a necessity of raising … (Johnson 1740-1741, *Parliamentary Debates*).

Among the tokens that take *that*-clause complements, (43) below has the longest insertion.

(43) It may be urged farther by those who are desirous to deceive others, or willing to be deceived themselves, that the province of Holland has passed a vote for assisting the queen of Hungary with 20,000 men … (Johnson 1740-1741, *Parliamentary Debates*).

Another aspect of the Complexity Principle, negation, is also found with *that*-clause patterns.

(44) Let it not be urged, my lords, that politicks are advanced since the time of Cromwell, and that errors which might … (Johnson 1740-1741, *Parliamentary Debates*).

(45) At the same time they urge, with equal truth and propriety, that the charge is not less devoid of probability, than it is de… (Gibbon 1776, *The Decline and Fall of the Roman Empire*).

In (44), the negation is in the higher clause; in (45), there is a prepositional phrase inserted between *urge* and the *that*-clause which follows it. Meanwhile, negation in (45) is in the *that*-clause. Negation in the *that*-clause is far more common (7 tokens) than main clause negation (2 tokens). Co-occurrence of complexity factors is extremely common in *that*-clauses, NP + *that*-clause, and *to* + NP + *that*-clause patterns.

At this point, a statistical comparison (shown in Table 9 below) between the *that*-clause pattern and the NP + *to*-infinitive pattern is necessary. Table 9 shows that the passive form occurs with 25.0% and 67.6% of the data with the NP + *to*-infinitive and the *that*-clause patterns, respectively. Insertion occurs with 22.9% and 52.9% of the data with the NP + *to*-infinitive pattern and the *that*-clause pattern, respectively. *That*-clauses clearly have a higher percentage of passive forms of *urge* and insertions. The *that*-clause pattern also tends to have a higher percentage of negation. Tokens occurring in the NP + *to*-infinitive pattern are less likely to have complexity factors like passivization, insertion, and negation. This observation complies with the Complexity Principle in general. In Table 9, complexity factors other than passivization, insertion, and negation are not included in the calculation.

		NP + *to*-infinitive	*That*-clause
With Complexity Factors	Passivization	12 (25.0%)	23 (67.6%)
	Insertion	11 (22.9%)	18 (52.9%)
	Negation	2 (4.2%)	9 (26.5%)
Without Complexity Factors		33 (68.8%)	3 (8.8%)

Table 9: Complexity factors with the NP + *to*-infinitive and the *that*-clause patterns.

Sentence (46) is contains a mandative *should* in the *that*-clause.

(46) It has been urged, sir, with great importunity and vehemence, that some expedient should be proposed in the place of … (Johnson 1740-1741, *Parliamentary Debates*).

According to Huddleston & Pullum (2002, 999), *urge* not only licenses mandative clauses, but also takes non-mandative content clauses. Below are two non-mandative content clauses with *shall* and *ought to*.

(47) Would not those who distinguished themselves as the opponent of the court, have urged, that the kind ought to exert his prerogative, and trust the equity of the senate for the … (Johnson 1740-1741, *Parliamentary Debates*).

(48) … and have been urged with so much force and judgment, that I shall not endeavor to add any new arguments; since … (Johnson 1740-1741, *Parliamentary Debates*).

5.2.2.3 Other sentential complements

The *wh*-clause pattern has one token in the data, given below as (49). A prepositional phrasal insertion occurs in this token.

(49) Sir, I shall not urge in defense of my motion what is generally known, and has been frequently included in all debates (Johnson 1740-1741, *Parliamentary Debates*).

The poss. + *-ing* pattern also has only one token in the data.

(50) … and with tears in his eyes first urged my going to Buxton, and then, (finding my refusal established,) that I should at least try the … (Pratt 1776, *The Pupils of Pleasure*).

Both the *wh*-clause pattern and poss. + *-ing* pattern have been included in the *OED*, however, examples of these two patterns in the *OED* are not abundant. The direct speech pattern, which is given relatively more common in the *OED* examples, has one token in the data. The senses of *urge* in these three different kinds of patterns are uniformly sense 1.

(51) Madam, urged the captain, his knee still bent, must congratulate you on such happy conclusion. Then turning… (Richardson 1748, *Clarissa*).

Sentence (51) takes the direct speech pattern, and there is a phrasal insertion of “his knee still bent”.

5.2.3 Review of the CLMET 1710 – 1780 data

A table indicating the patterns and senses of the retrieved data from the part one of the CLMET 3.0 version is given below. The numbers in the cells indicate the tokens of a certain pattern that are

assigned to a certain sense. The percentage distribution of each sense is given at the bottom of Table 9, while the percentage distribution of each pattern is given in Table 8 at the beginning of sub-section 5.2.

Pattern	**Sense 1** To bring forward, state, or present facts, arguments, allegations, etc.	**Sense 2** To advise, persuade, or importune	**Sense 3** To hasten or press forcibly in a particular direction	**Sense 4** To stimulate, incite or to exercise pressure or constraint	**Sense 5** To ply, use, or work vigorously
NP	88	13	8	14	-
NP + *to*-inf.	-	18	4	26	-
that-clause	33	-	-	-	-
NP + *to* + NP	6	2	3	6	-
NP + *against* + NP	14	-	-	-	-
NP + *on* + NP	3	1	-	-	-
to + NP + NP	3	-	-	-	-
NP + *farther*	-	-	3	-	-
upon + NP + NP	2	-	-	-	-
NP + *upon* + NP	1	1	-	-	-
NP + *forward*	-	-	2	-	-
NP + *that*-clause	1	-	-	-	-
to + NP + *that*-clause	1	-	-	-	-
wh-clause	1	-	-	-	-
poss. + *-ing*	-	-	1	-	-
direct speech	1	-	-	-	-
NP + *further*	-	-	1	-	-
upon + NP	-	1	-	-	-
NP + *down* + NP	-	-	1	-	-
NP + *from* + NP	-	-	1	-	-
for + NP	1	-	-	-	-
∅	2	2	-	1	-
Total number and percentage	**156 (58.6%)**	**39 (14.7%)**	**24 (9.0%)**	**47 (17.7%)**	**0 (0.0%)**

Table 10: Pattern and sense distribution in the first part of the CLMET (1710 – 1780)

Comparing the complement patterns in the CLMET from the period of 1710 to 1780 with patterns that are discussed in earlier literature, the patterns from the data cover all the frequently mentioned patterns from earlier work. The most notably missing pattern from the data is the *–ing* pattern mentioned by Poutsma. Furthermore, some AdvP patterns are not found in the data, or they

appear in the data but are not mentioned in earlier work. However, variation in patterns involving AdvPs which take sense 3 is unavoidable.

Sense 1 is the most dominant sense with *urge*, with 58.6% of the data taking this sense. The NP pattern, *that*-clause pattern, and some AdvP patterns, such as NP + *against* + NP, mainly belong to this sense; senses 2 and 4 lag behind sense 1 over 40 percentage points, and senses 2 and 4 are dominated by NP and NP + *to*-infinitive patterns; sense 3 is relatively less common, with only 9.0% of the tokens take this sense; and sense 5 is unfortunately not found in the data.

A notable characteristic of the patterns and senses is the wide distribution of senses with some patterns. For example, the NP pattern can be found with all five senses. *That*-clauses, *wh*-clauses, and direct speech patterns are restricted to sense 1, but the NP + *to*-infinitive pattern is not found with this sense. Complement patterns involving AdvPs are most common with sense 1, 2, and 3. Sense 4 prefers the NP + *to*-infinitive and the NP + *to* + NP patterns.

It is noticeable that *that*-clause complements often involve the most complex structures; whereas with *to*-infinitives, there are some cases of violation of the Complexity Principle, in terms of insertions and passivizations, etc. However, the general tendency indicated by the Complexity Principle is followed indisputably.

5.3 *Urge* in the CLMET 1850 – 1920

For the third part of the CLMET, the original version is chosen for this thesis. Altogether 210 tokens are retrieved, with 137 in the form of *urged*, 42 in the form of *urge*, 6 in *urges*, and 25 in the form of *urging*. Preliminary treatment of the data excludes 8 phrasal verbs and 4 irrelevant tokens involving adjectival or nominal uses of *urge*. Below is an example of such tokens:

(52) … and the pen was put at once into my aunt's hand. I felt strongly urged to say a few appropriate words on this solemn occasion (Collins 1868, *The Moonstone*).

The rest of the 198 relevant tokens from the third part of the CLMET extending from the year 1850 to 1920 are analyzed in a similar fashion with the first part of the CLMET data. Qualitatively, different complement patterns are identified, senses are assigned to each individual token, tokens occurring in different patterns are closely analyzed in their structures, and a horizontal comparison within patterns is conducted when necessary. Quantitatively, frequencies of patterns as well as normalized frequencies are calculated, and they are shown in the table below:

Complement	***urge***	***urged***	***urging***	***urges***	**Total**	**Percentage**	**Normalized frequency per million words**
NP + *to*-inf.	11	33	8	-	52	26.2%	13.1
NP	20	18	3	2	43	21.7%	10.8
direct speech	-	34	-	2	36	18.2%	9.0
that-clause	5	16	2	-	23	11.6%	5.8
NP + *to* + NP	1	6	1	-	8	4%	2.0
NP + *upon* + NP	1	4	2	1	8	4%	2.0
upon + NP + NP	1	2	-	-	3	1.5%	0.8
NP + *against* + NP	-	2	-	-	2	1%	0.5
NP + *towards* + NP	1	1	-	-	2	1%	0.5
NP + *on* + NP	-	1	1	-	2	1%	0.5
wh-clause	-	-	2	-	2	1%	0.5
NP + *that*-clause	-	1	-	-	1	0.5%	0.3
against + NP + *that*-clause	1	-	-	-	1	0.5%	0.3
NP + direct speech	-	1	-	-	1	0.5%	0.3
to + NP + direct speech	-	1	-	-	1	0.5%	0.3
NP + *in* + NP	-	1	-	-	1	0.5%	0.3
NP + *for* + NP	-	1	-	-	1	0.5%	0.3

NP + *backwards*	-	1	-	-	1	0.5%	0.3
NP + *forward*	-	1	-	-	1	0.5%	0.3
on + NP + NP	-	1	-	-	1	0.5%	0.3
NP + *through* +NP	-	1	-	-	1	0.5%	0.3
NP + *thereto*	-	-	-	1	1	0.5%	0.3
NP + *up* + NP	-	-	1	-	1	0.5%	0.3
to + NP + NP	-	-	1	-	1	0.5%	0.3
NP + *into* + NP	-	-	1	-	1	0.5%	0.3
upon + NP + *wh*-clause	-	1	-	-	1	0.5%	0.3
∅	1	1	-	-	2	1%	0.5
Total	**41**	**129**	**22**	**6**	**198**	**100%**	**50.5**

Table 11: Complement pattern distribution in the third part of the CLMET (1850 – 1920)

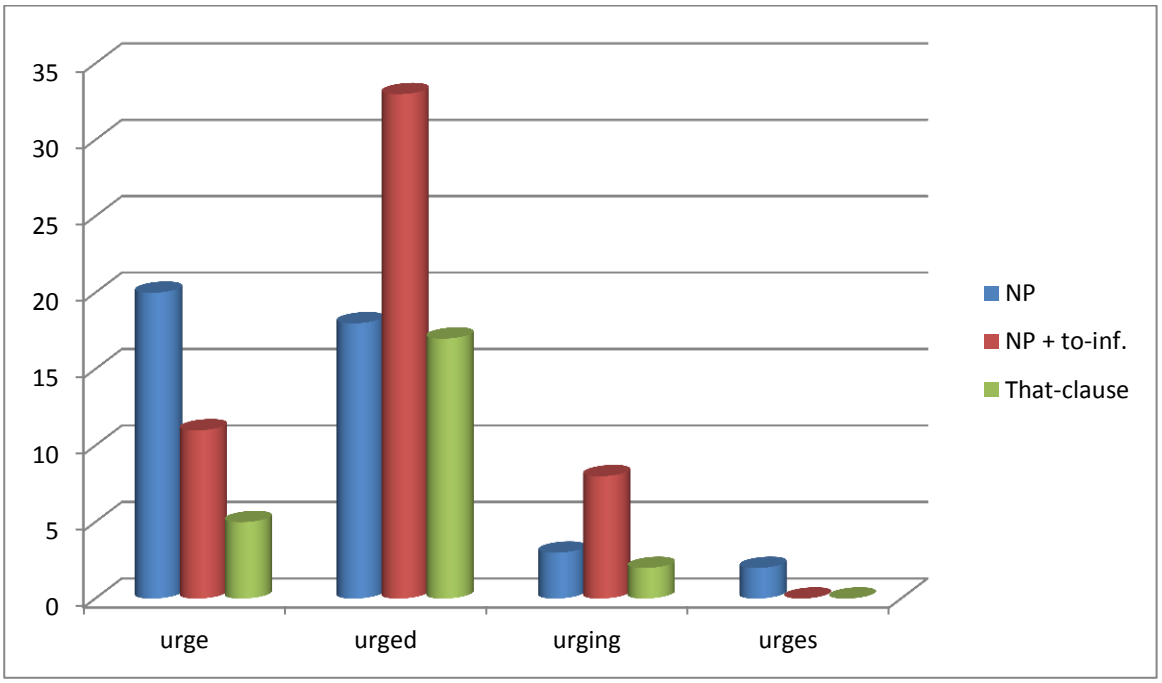

Figure 2: Number of major complement patterns

26 types of complement patterns are identified in the data (excluding zero complements), and these patterns are dealt with in detail in the following sections.

5.3.1 Non-sentential complements

Under the non-sentential complement category, the NP complement is the most frequent pattern. The passive construction with this pattern is notably less common (7 tokens out of 43 tokens are in the passive form) than the previous part of the corpus.

(53) … and as this objection has been vehemently urged by those whom nature's decree has constituted the somewhat larger half of the Spaceland race … (Abbot 1884, *Flatland*).

In (53), the NP complement undergoes passivization. In its corresponding active form, the long subject NP is assigned an agent role, and the NP complement "the objection" is assigned a theme role. *Urge* in (53) takes sense 1, as when *urge* takes NPs such as *argument*, *request*, *plea*, *claim*, *objection*, etc., it can be typically interpreted as sense 1.

Relativazation and interrogation are also found with the NP pattern. There are two tokens which involve an NP complement being extracted with a relative construction, and there are also two tokens in the form of question extraction.

(54) All I have to urge between these two boards is that I dislike the big Whiteley shop, and that I dislike Socialism … (Chesterton 1912, *What's Wrong with the World*).

The omitted relative pronoun "that" in (54) serves as the NP complement for *urge*, and it also leaves a trace of movement behind *urge*. From the context, we can infer that "that" refers to the *that*-clause that follows *urge*. Therefore, the actual NP complement is an [-ANIMATE] theme.

(55) Pardon me, that is exactly what not merely the wildest evolutionists urge, but some of the tamest evolutionists too (Chesterton 1912, *What's Wrong with the World*).

In (55), the complement NP "what" is moved to clause initial position. Judging from the context, this NP is also an [-ANIMATE] theme. *Urge* in both (54) and (55) takes simplified sense 1.

Sentence (56) below is one rare token that involves topicalization. The topicalized demonstrative pronoun "this" is the NP complement in (56), and it is an [-ANIMATE] theme.

(56) This the British Agent at once began to urge. This the government obstinately refused to admit; and meanwhile time was passing (Churchill 1899, *The River War*).

An NP complement can be assigned either a theme role or a patient role by *urge*, and subject NPs can also alternate between agent roles and causer roles.

(57) Fritz and Bernenstein here urge me; you, Sapt, try to force me (Hope 1898, *Rupert of Hentzau*).

(58) … for the blowflies, attracted by odor of the meat, swarm round the vessel, and, urged by a powerful but in this case misleading instinct, lay eggs out of which maggots are immediately … (Huxley 1894, *Discourses, Biological and Geological Essays*).

In examples (57) and (58), the NP complements "me" and "the blowflies" are [+ANIMATE] patients. The subject NP in the two sentences differ as in (57) it is an [+HUMAN] agent and in (58) it is an [-ANIMATE] causer. The sense of *urge* in (58) belongs to sense 2, and in (59) it is closer to sense 4.

NP + *to* + NP pattern has 8 tokens, making it the second most frequent non-sentential pattern in this part of the CLMET. Among the data that occur in this pattern, two tokens involve relative extraction, and one of the tokens also involves *urge* in its passivized form.

(59) Perhaps the activity, the resolution to which he had urged himself, caused a sharpening of his perceptions (Gissing 1893, *The Odd Woman*).

(60) But even thus she could consider the vast issues of the step to which she was urged (Gissing 1893, *The Odd Woman*).

In (59), parts of the complement string is extracted due to relativization. And in (60), the entire complement string is extracted by relativization and passivization. The "*to* + NP" part in the string NP + *to* + NP takes the role of a goal. *Urge* in (59) and (60) takes sense 1.

The NP + *upon* + NP pattern has 8 occurrences, and they all take sense 1. Sentence (61) is one example with a passivized *urge*.

(61) … similar settlements in Canada, Australia, or some other land. British Columbia has been strongly urged upon our notice (Booth 1890, *In Darkest England and the Way Out*).

When NP + *upon* + NP pattern takes sense 1, a common alternative to this pattern is the NP + *on* + NP pattern. Two tokens are found to be in the latter pattern. (62) below which involves passivization is one of the tokens:

(62) Concerning these, the practical course is simple; soap should be urged on them and advertised as what it is – a luxury (Chesterton 1912, *What's Wrong with the World*).

Upon + NP + NP pattern has 3 tokens. (63) below is one of the tokens in this pattern.

(63) In particular, he urged upon me a work, then just published, called The Continuity of Scripture by William Page Wood … (Gosse 1907, *Father and Son*).

NP + *against* + NP pattern also has two tokens, and both tokens are given below:

(64) … "and yet, if there was anything at all in the virtue of Christian charity, what could properly be urged against the association?" (Bennett 1908, *The Old Wives' tale*).
(65) … struck his blow at democracy, the essential of the Darwinian argument had been already urged against the French Revolution (Chesterton 1912, *What's Wrong with the World*).

In (64), the first NP in the string is "what", and it is extracted due to the interrogation extraction; (65) involves passivization. Both sentences take sense 1. It is noticeable, at this point, that in the retrieved data from the third part of the CLMET, sense 1 dominates the patterns NP + *upon* + NP, NP + *on* + NP, *upon* + NP + NP, and NP + *against* + NP. Another pattern which occurs only once in this part of the data and also belongs to this sense group is the NP + *for* + NP pattern.

Next I move on to a different group of non-sentential patterns found in this part of the corpus. NP + *towards* + NP, NP + *backwards*, NP + *in* + NP, NP + *forward*, NP + *through* +NP, NP + *thereto*, NP + *up* + NP, and NP + *into* + NP patterns are locative AdvPs that indicate movement towards a certain direction.

However, when these patterns occur in figurative speech, they cannot be easily interpreted as when they take locative roles. Consider the following two sentences:

(66) … a new motive for life was supplied to her, and a new force urged her through each day (Rutherford 1893, *Catherine Furze*).
(67) … a family with seven or eight hundred a year from investment, which derives from the middle class, the tradition is that, in spite of the essential irresponsibility of the economic position, will urge this family towards exertion as a duty (Wells 1903, *Mankind in the Making*).

Although both sentences involve direction suggesting AdvPs, *urge* in (66) is closer to sense 4. In (67) it lies somewhere between sense 3 and sense 4, though closer to sense 4.

5.3.2 Sentential complements

5.3.2.1 NP + *to*-infinitive

The NP + *to*-infinitive pattern has 52 occurrences, with 11 occurrences with *urge*, 33 with *urged*, 8 with *urging*, and with the form of *urges*, no tokens occur in this pattern. Structurally, one notable difference between tokens retrieved from this part of the corpus and the first part is the decrease in passivization. In the first part of the CLMET, 12 tokens out of 48 tokens occur with *urge* in its passive form, while in the third part of the corpus, among the total 53 tokens in this pattern, only 5 tokens involve *urge* in its passive form.

(68) Almost in the last hour of her life, urged to confess her "joy" in the Lord, my mother, rigidly honest, meticulous in self-analysis, as ever … (Gosse 1907, *Father and Son*).
(69) It was as though she were being urged to undertake something hard and repugnant (Gissing 1893, *The Odd Woman*).

Compared with the bare passive in (68), the *be*-passive in (69) is the more common type in the data.

A second notable difference between the two sets of retrieved data is relative extraction. In the third part of the CLMET, apart from passivization, no other forms of movements are found.

Furthermore, the complexity level of the *to*-infinitive clause in the NP + *to*-infinitive pattern is also downgraded. Most commonly, tokens occurring in this pattern prefer simple forms as (70) below. Sentence (71) represents a rare case of more complex lower clauses, with a *wh*-clause embedded in the *to*-infinitive. *Urge* in (70) and (71) belongs to sense 2.

(70) He urged me to give up such idleness, and to make practical use of language (Gosse 1907, *Father and Son*).
(71) He went so far as to urge her to say whether she would as willingly utter consent if they were in a church and a clergyman … (Meredith 1895, *The Amazing Marriage*).

In two tokens, there are long NPs with relative clausal post-modifiers. (72) below is one of them.

(72) In many conversations, she most tenderly and closely urged my father, who, however, needed no urging, to watch with unceasing care over my spiritual welfare … (Gosse 1907, *Father and Son*).

Non-restrictive relative clauses, as the one in (72) above, are not included as insertions. Insertions between *urge* and the *to*-infinitive are found with four tokens, and they are short words or phrases,

indicating intensity, such as “forcibly”, or time, such as “now”, or *by*-phrases. Sentence (73) below is an example of them.

(73) Indeed Temple now urged me forcibly to prevent my father from spending money and wearing his heart out in vain … (Meredith 1870, *The Adventures of Harry Richmond*).

As regards thematic roles in the NP + *to*-infinitive pattern, the NPs are all [+HUMAN] patients except in one ambiguous token (sentence (74) below) the NP is a collective body “government”.

(74) … and the desirability of solving the problem is put in the foreground of his reasons for urging the government to undertake the work of exploration … (Huxley 1894, *Discourses, Biological and Geological Essays*).

As discussed in earlier sections, the *to*-infinitive complement part serves as the goal. Subject NPs can either be a [+HUMAN] agent or an [-ANIMATE] causer. The senses of this pattern are rather fixed in this part of the data. When the subject NP is an agent, *urge* tends to take sense 2; when the subject NP is a causer, *urge* is more likely to belong to sense 4.

The verbs in the lower clause include: *refuse*, *take advantage of*, *go*, *comply*, *return*, *write*, *save*, *strive on*, *undertake*, *lie*, *watch*, *confess*, *complete*, *start*, *marry*, *use*, *retire*, *prevent*, *betake*, *say*, *repeat*, *oppose*, *over-tax*, *meddle*, *puff up*, etc. With the abovementioned verbs, the understood subjects PRO are agents; however, themes are also identified where the lower verb does not assign agent roles. Copula verbs occur twice as the lower verb.

(75) … and I was urged to be out and about as much as possible (Gosse 1907, *Father and Son*).

(76) Harris said it was indigestible; but we merely urged him not to be an ass, and George went on (Jerome 1889, *Three Men in a Boat*).

The lower clauses indicate states rather than actions; therefore, the PROs in (75) and (76) are assigned theme roles.

5.3.2.2 *That*-clause

There are 24 tokens with the *that*-clause pattern from this period of the CLMET: 17 tokens with the form *urged*, 5 with *urge*, and 2 with *urging*. Half of the tokens (12 tokens) that take this complement pattern involve passivization. Sentence (77) represents a common passive form with *urge*.

(77) It might easily be urged in answer that many a ship (the Victoria, for instance) was sunk because an admiral gave an order which a cabin-boy could see was wrong (Chesterton 1912, *What's Wrong with the World*).

In (77), there is a short phrasal insertion between the verb *urge* and the *that*-clause. Altogether only four tokens are found to have similar insertions. The longest insertion that found in the data is in sentence (78) below. In the following sentence, "in company with Professor Hering, of Prague, and others" is inserted before the *that*-clause.

(78) I have for some years maintained this to be a mistake and have urged, in company with Professor Hering, of Prague, and others, that the connection between memory and heredity is so close that there is no reason for regarding the two as generically different, though for convenience sake it may be well to specify them by different names (Butler 1912, *Notebooks*)

Compared with data from the first part of the CLMET, insertions are found to be less frequent in the third part of this corpus. However, the complexity level of *that*-clauses generally exceeds that of the NP + *to*-infinitives in this part of the CLMET.

As mentioned in the earlier literature, the mandative clause with *should* is an alternative of the NP + *to*-infinitive pattern. Three tokens occur in the *should* mandative form. Interestingly, the modal verb "might" is found in one of the *that*-clause patterns. In (79), the presence of "might" softens the tone of *urge*.

(79) … and write about other things; sometimes I would turn upon the tormentor, and urge that my tender youth might be let alone (Gosse 1907, *Father and Son*).

The NP + *that*-clause pattern yields only one token. In (80) the NP "the idea" is extracted by clefting, and the *that*-clause is moved to the right of the clause by extraposition. A clear insertion creates a discontinuity between *urge* and the *that*-clause.

(80) It was the idea I urged in the second part of the book: that the world must keep one great amateur, lest we all become artists and perish (Chesterton 1912, *What's Wrong with the World*).

The sense of *urge* in the *that*-clause pattern belongs to sense 1 exclusively.

5.3.2.3 Other sentential complements

This sub-section discusses the direct speech and the *wh*-clause patterns. The direct speech pattern has 36 occurrences, with 34 tokens in the form of *urged* and 2 tokens in the form of *urges*. There is a sharp increase in frequency with the direct speech pattern when compared with this pattern from the first part of the CLMET.

Two other patterns which also involve direct speech are: NP + direct speech and *to* + NP + direct speech. The *to* + NP + direct speech pattern is mentioned in the *OED*. Both of the two patterns have only one occurrence, and they are presented as (81) and (82). In (82) however, the presence of *so* is noted. The sense of *urge* in patterns involving direct speech falls under sense 1.

(81) "But don't fail, if you can help it," he urged me; "for things somehow, my dear Harry, appear to me to look like the compass when the needle … (Meredith 1870, *The Adventures of Harry Richmond*).
(82) "We want to get rid of a lot of sham proprety" – so she urged to her closer friends (Gissing 1893, *The Odd Woman*).

Wh-clause pattern has two tokens in the data.

(83) … yet that is the most human way of urging what you desire. By taking up the proud position that a woman must be altogether … (Gissing 1893, *The Odd Woman*).
(84) Last night she had suffered in his opinion by urging what he thought a weak, womanly scruple; she had condescended to plead tenderly with him … (Gissing 1893, *The Odd Woman*).

A rare pattern *upon* + NP + *wh*-clause is identified in this part of the data. Although this pattern is not found in the first part of the corpus, a close variation of this pattern "*on* + NP + *wh*-clause" is mentioned by Poutsma in the *Dictionary of Constructions of Verbs, Adjectives, and Nouns*.

(85) I urged upon George, however, how much pleasanter it would be to have Harris clean and fresh about the boat, even if we did have to take a few more hundred weight of provisions … (Jerome 1889, *Three Men in A Boat*).

The sense of *wh*-clause patterns belongs to sense 1.

5.3.3 Review of the CLMET 1850 – 1920 data

The number of data from this period of time is smaller than the data retrieved from the previous period, the variation is partly due to the different versions of the corpus utilized, and also due to the overall frequency of the verb *urge* has dropped. The normalized frequency of the verb *urge* drops from 77.2 instances pmw (per million words) to 50.5 pmw.

There is a dramatic decrease in the occurrence of NP complements, as the normalized frequency of NP pattern drops from 35.6 instances pmw to 10.8 instances pmw. *That*-clause also decreases from 9.8 instances pmw to 5.8 instances pmw. The NP + *to*-infinitive pattern remains largely unchanged, only decreasing slightly from 13.9 instances pmw to 13.1 instances pmw. The direct speech pattern experiences an extreme increase: from 0.3 instances pmw to 9.0 instances pmw. Despite the sudden popularity of the direct speech pattern, the overall normalized frequency of *urge* is lower than the previous period (from 1710 to 1780).

Below is an overview of pattern and sense distribution.

Pattern	**Sense 1** To bring forward, state, or present facts, arguments, allegations, etc.	**Sense 2** To advise, persuade, or importune	**Sense 3** To hasten or press forcibly in a particular direction	**Sense 4** To stimulate, incite or to exercise pressure or constraint	**Sense 5** To ply, use, or work vigorously
NP + *to*-inf.	-	36	1	15	-
NP	31	9	1	2	-
Direct speech	36	-	-	-	-
that-clause	24	-	-	-	-
NP + to + NP	3	3	1	1	-
NP + *upon* + NP	8	-	-	-	-
upon + NP + NP	3	-	-	-	-
NP + *against* + NP	2	-	-	-	-
NP + *towards* + NP	-	-	1	1	-

NP + *on* + NP	2	-	-	-	-
wh-clause	2	-	-	-	-
NP + *that*-clause	1	-	-	-	-
NP + direct speech	1	-	-	-	-
to + NP + direct speech	1	-	-	-	-
NP + *in* + NP	-	-	1	-	-
NP + *for* + NP	1	-	-	-	-
NP + *backwards*	-	-	1	-	-
NP + *forward*	-	-	1	-	-
on + NP + NP	1	-	-	-	-
NP + *through* +NP	-	-	-	1	-
NP + *thereto*	-	-	1	-	-
NP + *up* + NP	-	-	1	-	-
to + NP + NP	1	-	-	-	-
NP + *into* + *NP*	-	-	1	-	-
upon + NP + *wh*-clause	1	-	-	-	-
∅	2	-	-		-
Total	**120 (60.6%)**	**48 (24.2%)**	**10 (5.1%)**	**20 (10.1%)**	**0 (0.0%)**

Table 12: Pattern and sense distribution in the third part of the CLMET (1850 – 1920)

Sense 1 still dominates the majority of the tokens; the rare sense 5 is still missing data support. A clear trend for this time period is an increased diversity of patterns. There is an increase of patterns involving various adverbs phrases. Adverb phrases with *towards*, *backwards*, *thereto*, *up*, and *into* do not appear in the first part of the data.

5.4 *Urge* in the BNC

The BNC is chosen for investigation of complement patterns of *urge* in Modern English. The lemma search string {urge}_V* is used for retrieving data from the Imaginative Prose text domain within the written register of the corpus. Altogether 535 hits are returned in 219 different texts. In order to reduce the number of data, the thinning option with random selection is performed. After 50% thinning, 267 tokens are retrieved from the BNC and these are the data chosen for analysis.

Altogether 6 tokens involving nominal usage of *urge* are discarded. (86) and (87) are two examples of the discarded tokens.

(86) … why this confessional urge that comes upon people at such times? (EDJ 1281).
(87) You know as well as any what answer he made to their urging and how fast they dropped it, at least in his hearing (HGG 812).

There are further 22 tokens involving the phrasal verb *urge on*, and these tokens are also not included in the analysis.

An overview of the patterns and their frequencies are presented in the table below. As for the normalized frequency column, the calculation is carried out as follows: the Imaginative Prose section of the BNC has 16,946,408 words, taking only 50% percent of the data reduces the text size to half, 8,472,204 words. Raw frequencies divided by the reduced text size and multiplied by 1 million calculate the final normalized frequencies in the rightmost column.

Complement	***urge***	***urged***	***urging***	***urges***	**Total**	**Percentage**	**Normalized frequency per million words**
NP + *to*-inf.	11	39	23	1	74	31.0%	8.7
direct speech	1	64	1	1	67	28.0%	7.9
NP + *to* + NP	2	9	4	-	15	6.3%	1.8
NP	5	6	3	1	15	6.3%	1.8
NP + direct speech	1	12	-	-	13	5.4%	1.5
NP + *towards* + NP	1	5	2	-	8	3.3%	0.9
NP + *into* + NP	-	7	1	-	8	3.3%	0.9
NP + *forward*	-	3	1	-	4	1.7%	0.5
that-clause	-	3	-	-	3	1.3%	0.4
NP + *down* + NP	-	2	1	-	3	1.3%	0.4
NP + *for* + NP	-	-	1	1	2	0.8%	0.2
NP + *along* + NP	-	2	-	-	2	0.8%	0.2
NP + *out of* + NP	-	2	-	-	2	0.8%	0.2
NP + *onwards*	1	1	-	-	2	0.8%	0.2

NP + *onward*	-	1	1	-	2	0.8%	0.2
NP + *out*	1	1	-	-	2	0.8%	0.2
NP + *inside*	-	2	-	-	2	0.8%	0.2
NP + *further*	1	-	-	-	1	0.4%	0.1
NP + *away*	1	-	-	-	1	0.4%	0.1
NP + *beside* + NP	-	1	-	-	1	0.4%	0.1
NP + *indoors*	-	1	-	-	1	0.4%	0.1
NP + *ahead*	-	1	-	-	1	0.4%	0.1
NP + *nearer*	-	1	-	-	1	0.4%	0.1
NP + *up*	-	1	-	-	1	0.4%	0.1
NP + *toward* + NP	-	1	-	-	1	0.4%	0.1
NP + *through* + NP	-	-	1	-	1	0.4%	0.1
against + NP + direct speech	-	1	-	-	1	0.4%	0.1
∅	-	2	2	-	4	1.7%	0.5
Total	**26**	**168**	**41**	**4**	**239**	**100%**	**27.7**

Table 13: Complement pattern distribution in the BNC

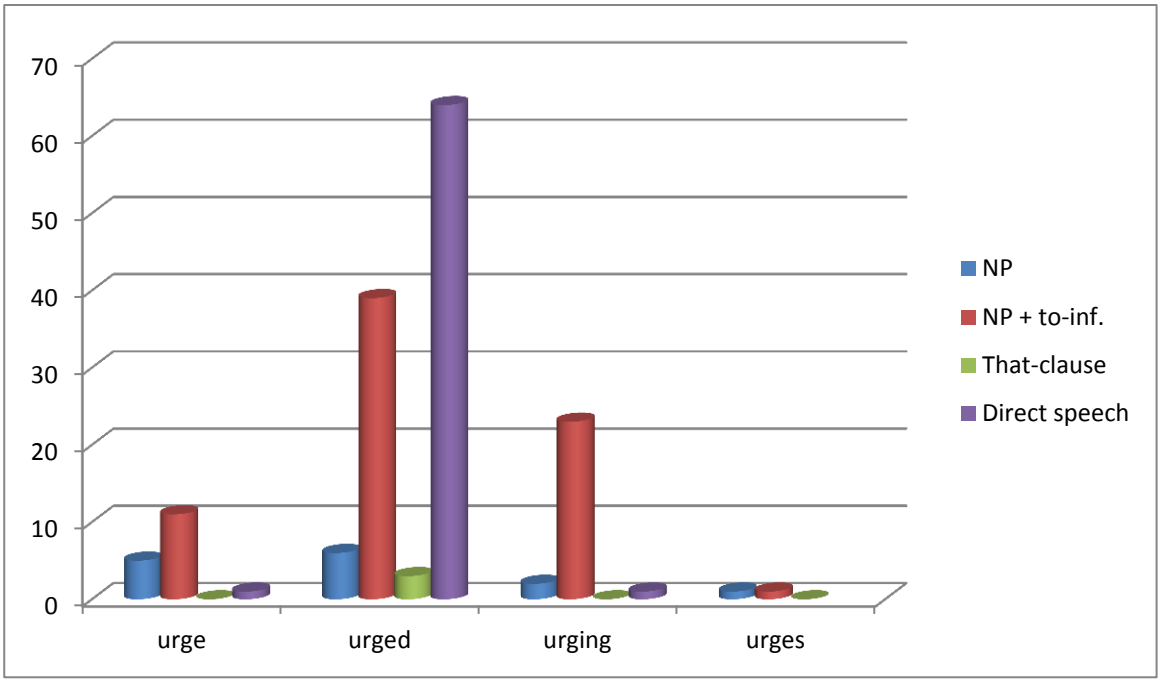

Figure 3: Number of major complement patterns

A total of 239 tokens are relevant to the complement analysis of *urge* in this thesis. These tokens are further categorized into 27 complement patterns (excluding the zero complement pattern). As shown in Figure 3, the NP + *to*-infinitive pattern remains the most common complement pattern in Modern English. The NP pattern and the *that*-clause pattern are overtaken by the direct speech pattern in number. Furthermore, AdvP patterns experience a dramatic increase. In the sections to follow, non-sentential and sentential patterns are discussed as usual.

5.4.1. Non-sentential complements

Among the non-sentential complement patterns, the NP complement pattern is the most frequent pattern in the two sets of data from the CLMET analyzed in previous sections; however, in the BNC sample data, the state of the NP pattern is challenged by the NP + *to* + NP pattern, as the two pattern have an equal number of tokens.

Starting from the NP + *to* + NP pattern, there are two occurrences with the form of *urge*, 9 with *urged*, and 4 with *urging*. A number of tokens that I categorize into the NP + *to* + NP should be discussed separately from the rest of the tokens occurring in this pattern.

As shown below, there are 4 tokens which involve complex adverb phrases. Adverbs such as "upstairs", "across", "up", etc., are inserted between the first NP and the string "*to* + NP", and these adverbs, indicating the path from the source to the goal, could be considered as complements together with the goal "*to* + NP"; however, for the sake of clarity, only the final goal is considered as complement, and the path from the source to the goal is omitted in the complement pattern.

(88) Anthony put an arm gently around her shoulders and urged her upstairs back to bed as though she were one of his charges from the orphanage (FSC 695).
(89) Guy urged the horse over to the largest of the mean shelters and dismounted (HH1 1508).
(90) … and Luke too her hand, kissing her quickly before urging her across the road to the car park and into his car (JXV 3540).
(91) … he informed her, urging her up the steps to where an amused Jonas was an interested spectator (JY8 4480).

It is worth mentioning that complex AdvPs patterns represented by (88) to (91) are unique to the data drawn from the BNC.

Next I focus on the senses of the NP + *to* + NP pattern. All example sentences from (88) to (91) take sense 3, and this sense is the most common sense with this pattern.

This pattern takes all senses but sense 5. Depending on the subject NP and the first NP in this complement string, the senses of *urge* vary. Sense 1 is illustrated by sentence (92). The first NP in (92) is "objection", and it is a likely indicator for *urge* to take sense 1.

(92) Nor shall I again urge the objections cited above to the "murderous conspiracy" theory (BMR 1675).

There is only one token that takes sense 2, and it is given as (93) below. Sense 4 occurs typically with subject NP which takes a causer role. (94) is an example of them.

(93) … and all the time she urged him to greater efforts (FPX 2907).
(94) Gradually the impulse which had taken him over to the wood, the instinct which had urged him to a resolution, worked its way to the surface (FP1 1137).

The NP complement pattern has 15 occurrences: 5 of them occur with *urge*, 6 with *urged*, 3 with *urging*, and 1 with *urges*. Apart from the sudden drop in number with this pattern, there is also a dramatic change in syntactical complexity. Passivization and relativization of *urge* in NP complements are rare.

(95) Had Hotspur even confided to him all that she had urged and confessed, yesterday evening? (HGG 481).

In (95), the NP complement "that" undergoes relative extraction and it is assigned a theme role by *urge*. The sense here falls under sense 1. Sentence (95) is the only token of this pattern that has an extraction construction.

As shown in Table 14 below, in the BNC data, as many as 22 different types of adverb phrases (including the NP + *to* + NP pattern discussed previously) serve as complements. I group these complement patterns according to the general direction that the AdvP suggests.

Suggested direction	**Complement pattern**
Movement indicating an outward goal	NP + *to* + NP NP + *towards* + NP NP + *toward* + NP NP + *out* NP + *out of* + NP NP + *away*
Movement indicating an inward direction	NP + *into* + NP NP + *inside* NP + *indoors*
Movement indicating a downward or upward direction	NP + *down* + NP NP + *up*
Movement along a certain direction or indicating forwardness	NP + *along* + NP NP + *onwards* + NP NP + *onward* + NP NP + *ahead* NP + *forward*
Movement indicating distance	NP + *further* NP + *nearer* NP + *beside* + NP
Movement from one end/side to the other end/side	NP + *through* + NP

Table 14: AdvP complement patterns

Not all AdvP complements are locatives. The NP + *into* + NP pattern takes 3 different senses in the data. The senses are illustrated with 3 different examples below. *Urge* in (96) takes sense 2, (97) is a typical sense 3 token, and in (98) *urge* is assigned with sense 4.

(96) He could have, he knew, urged her into response (FNT 4023).
(97) She urged her into the center of the room, where a bright fire burned (HH1 2906).
(98) Anxiety urged him into further risk (CDY 2601).

Tokens that take zero complement all have [+HUMAN] subject NPs and they are assigned agent roles by *urge*. Sense 2 is assigned to all the 4 tokens that take zero complement. (99) is an example of them.

(99) At first Shildon shied away but Eliot urged and the next batch of revelations were mad (GWG 710).

5.4.2 Sentential complements

5.4.2.1 NP + *to*-infinitive

The NP + *to*-infinitive pattern is the most frequent sentential pattern in the data retrieved from the BNC. The 74 tokens in this pattern are distributed among the four forms of urge, with 11 tokens with *urge*, 39 with *urged*, 23 with *urging*, and 1 with *urges*.

The passive form of *urge* is infrequent, only 4 tokens take the passive form, and 2 tokens involve relative extraction. Sentence (100) below involves passivization, and (101) has both passivization and relative extraction.

(100) Anybody who had seen or heard anything suspicious in the neighborhood of her home on Tuesday 1st September was urged to contact Thames Valley CID (G0N 1511).
(101) … for I need not repeat how much I respect Amaryllis, how entirely delightful and suitable I find her and how wonderfully rare she is for me who has – as man to man I can tell you what you must guess – several times been urged to marry (FP1 1888).

The active forms of (100) and (101) both have a [+HUMAN] patient as their object NP. In (101), a long insertion occurs between the extracted NP and the verb *urge*. However, insertions are mostly kept short with the NP + *to*-infinitive pattern in the BNC data, and two other cases of insertions

between *urge* and the *to*-infinitive are restricted to short terms of address or adverbs indicating manner.

The NPs in the string NP + *to*-infinitive tend to be [+HUMAN] patients, as shown in (100) and (101) above. However, sentence (102) and (103) have NPs which are patients and indicate collective notions.

(102) Feigning fatigue, we urge a baffled party to evacuate before the witching hour (HGL 2062).
(103) Webb-Bowen, peering over his half-spectacles, urged the hall to "settle down" (HNK 1400).

"A baffled party" and "the hall" are used to represent all the individuals of a certain group, and *urge* in both sentences takes sense 2.

In the BNC data, one token shows that *urge* also takes the NP + bare infinitive pattern. In sentence (104), the NP "the tides" is followed by a bare infinitive.

(104) Scenes made by guile or ones with clever promises urge the tides go out, leave her heart alone visibly unloved ... (B1C 1172).

The lower verbs in the data that take the NP + *to*-infinitive pattern are typically verbs that assign agent roles to their subjects: *come*, *do*, *hurry*, *sit*, *dress*, *rise*, *join*, *relinquish*, *hold on to*, *draw*, *dig*, *repent*, *growl*, *run*, *marry*, *bend*, *support*, *satisfy*, *take up*, *live*, *kneel*, *follow*, *go*, *consider*, *evacuate*, *develop*, *move*, *lower*, *drop*, *switch*, *lead*, *be kind to*, etc.

5.4.2.2 *That*-clause

Only 3 tokens in the BNC data take the *that*-clause pattern. Two mandative *that*-clauses are found in the data.

(105) In March 1983, the newspaper Liberation urged that the French Minister for Women's rights should put on her index for "public provocation to sexist hatred" the following works: Pantagruel, Jude the Obscure, Baudelaire's poems, all Kafka, The Snows of Kilimanjaro – and Madame Bovary (G1A 1042).
(106) But a remnant of caution urged that she tone it down, after all, Lucy … (A0L 365).

Sentence (105) has a *should*-mandative clause, and in (106), a subjunctive mandative clause emerges.

5.4.2.3 Other sentential patterns

In this sub-section, three patterns, namely, direct speech, NP + direct speech, and *against* + NP + direct speech pattern, are discussed.

The direct speech pattern has 67 occurrences: 64 tokens in this pattern occur with the form *urged*, and 1 with *urge*, 1 with *urging*, and 1 with *urges*.

First of all, unique to the BNC data, the term "direct speech" needs clarification. There are three varieties of direct speech: one is utterances made by people; the second is direct thought which indicates a mental activity; and the third type is indirect speech which is not quoted in quotation marks. Sentence (107) is an example of direct thought.

(107) Come on! She mentally urged, stop hanging back (AN7 3277).

With the first type of direct speech, quotation marks are usually applied to the content being urged, and the third type of direct speech is not quoted in quotation marks, as shown in (108) and (109) below:

(108) King's around, they urge (G11 737).
(109) Anything and everything was worn these days she urged (K8R 849).

The three varieties of direct speech also apply to the NP + direct speech pattern. However, only the first two types of direct speech are identified in the data, as indirect speech is not found with the NP + direct speech pattern. Sentences (110) and (111) are examples of direct thought with this pattern.

(110) Be logical, she urged herself (JY8 600).
(111) Be open with her, he urged himself, tell her … (F9C 1895).

The *against* + NP + direct speech pattern has only one occurrence and it is given as (112).

(112) "Yes, you do, and I want it to say yes," he urged against her mouth (H9V 3328).

5.4.3 Review of the BNC data

Altogether 239 relevant tokens from the BNC are analyzed closely. A summary of senses and patterns for this set of data is shown in the table below.

Pattern	**Sense 1** To bring forward, state, or present facts, arguments, allegations, etc.	**Sense 2** To advise, persuade, or importune	**Sense 3** To hasten or press forcibly in a particular direction	**Sense 4** To stimulate, incite or to exercise pressure or constraint	**Sense 5** To ply, use, or work vigorously
NP + *to*-inf.	-	62	1	11	-
Direct speech	67	-	-	-	-
NP + *to* + NP	1	1	10	3	-
NP	7	6	1	1	-
NP + direct speech	13	-	-	-	-
NP + *towards* + NP	-	1	7	-	-
NP + *into* + NP	-	1	6	1	-
NP + *forward*	-	-	4	-	-
that-clause	3	-	-	-	-
NP + *down* + NP	-	-	3	-	-
NP + *for* + NP	1	1	-	-	-
NP + *along* + NP	-	-	2	-	-
NP + *out of* + NP	-	-	2	-	-
NP + *onwards*	-	-	2	-	-
NP + *onward*	-	-	2	-	-
NP + *out*	-	-	2	-	-
NP + *inside*	-	-	2	-	-
NP + *in* + NP	-	-	1	-	-
NP + *further*	-	-	1	-	-
NP + *away*	-	-	1	-	-
NP + *beside* + *NP*	-	-	1	-	-
NP + *indoors*	-	-	1	-	-
NP + *ahead*	-	-	1	-	-
NP + *nearer*	-	-	1	-	-
NP + *up*	-	-	1	-	-
NP + *toward* + NP	-	-	1	-	-
NP + *through* + NP	-	-	1	-	-
against + NP + direct speech	1	-	-	-	-
∅	-	4	-	-	-
Total	**93 (35.5%)**	**76 (29.0%)**	**54 (20.6%)**	**16 (6.0%)**	**0 (0.0%)**

Table 15: Pattern and sense distribution in the BNC

Compared with previous two sets of data from the CLMET, a most obvious difference shown in the table is the increase of AdvP complements which take sense 3. The number of the NP + *to*-infinitive pattern remains at the top of the list in the table; *that*-clauses undergo a drastic decrease, the normalized frequency drops from 5.8 instance pmw to 0.4 instances pmw; and the direct speech pattern takes an opposite trend. Some patterns that previously tended to take sense 1 and involve two consecutive NPs disappear from the BNC data; the previously relatively frequent NP + *upon*/*on* + NP patterns also do not show in the table.

Sense 1 is still the most frequent sense; sense 2 and sense 3 witnesses an increase; sense 4 falls out of favor, as figurative interpretations lower in number; and only the status of sense 5 remains more or less the same in the BNC as in previously analyzed data.

6 Summary of data findings

In this chapter, I summarize the data findings. I start with non-sentential patterns and proceed to sentential patterns. Discussions of patterns and senses, and their relations to previously presented discussions by linguists will be incorporated and examined.

6.1 Findings on complement patterns

As presented in Chapter 5, three sets of data from the first and third parts of the CLMET and the BNC are analyzed in detail. Overall, starting from 1710 to the 1990s, the frequency of *urge* steadily decreases: from 77.2 instances pmw to 50.5 instances pmw, and in modern day it is only around 27.7 instances pmw.

There are altogether 48 types of complement patterns, as well as the zero complement, in the three sets of data. A full list of all the patterns can be found in Table 16 below.

	CLMET 1	CLMET 3	BNC

NP	✓	✓	✓
NP + to-infinitive	✓	✓	✓
that-clause	✓	✓	✓
NP + *that*-clause	✓	✓	
to + NP + *that*-clause	✓		
against + NP + *that*-clause		✓	
wh-clause	✓	✓	
upon + NP + *wh*-clause		✓	
poss. + *-ing*	✓		
direct speech	✓	✓	✓
NP + direct speech		✓	✓
to + NP + direct speech		✓	
against + NP + direct speech			✓
NP + *to* + NP	✓	✓	✓
NP + *against* + NP	✓	✓	
NP + *on* + NP	✓	✓	
to + NP + NP	✓	✓	
NP + farther	✓		
upon + NP + NP	✓	✓	
NP + *upon* + NP	✓	✓	
NP + *forward*	✓	✓	✓
NP + *further*	✓		✓
to + NP	✓		
upon + NP	✓		
NP + *down* + NP	✓		✓
NP + *from* + NP	✓		
for + NP	✓		
NP + *towards* + NP		✓	✓
NP + *in* + NP		✓	
NP + *for* + NP		✓	✓
NP + *backwards*		✓	
on + NP + NP		✓	
NP + *through* + NP		✓	✓
NP + *thereto*		✓	
NP + *up* + NP		✓	
NP + *into* + NP		✓	✓
NP + *along* + NP			✓
NP + *out of* + NP			✓
NP + *onwards*			✓
NP + *onward*			✓
NP + *out*			✓
NP + *inside*			✓
NP + *away*			✓
NP + *beside* + NP			✓

NP + *indoors*			✓
NP + *ahead*			✓
NP + *nearer*			✓
NP + *up*			✓
NP + *toward* + NP			✓
∅	✓	✓	✓
Total	22	27	28

Table 16: Complement patterns of the CLMET and BNC data

Some sentential patterns become rare in Modern English; while some AdvP patterns emerge and become more prevalent during the studied period. Patterns that are not mentioned in the literature but found in the data include the following sentential patterns: *to* + NP + *that*-clause, *upon* + NP + *wh*-clause, *against* + NP + direct speech, and *against* + NP + *that*-clause, and the following AdvP patterns: *to* + NP + NP, *to* + NP, *upon* + NP, NP + *farther*, NP + *further*, NP + *down* + NP, NP + *in* + NP, NP + *for* + NP, NP + *backwards*, NP + *thereto*, NP + *up* + NP, NP + *into* + NP, NP + *along* + NP, NP + *out of* + NP, NP + *out*, NP + *inside*, NP + *beside* + NP, NP + *indoors*, NP + *ahead*, NP + *nearer*, NP + *up*, and NP + *toward* + NP.

Sentential patterns that are not found in the data but are identified in the literature include: *upon* + NP + *that*-clause, *to*-infinitive, *upon* + NP + *to*-infinitive, and the plain *–ing* form; non-sentential patterns that are not found in the data are mainly AdvPs: *against* + NP + NP, *of* + NP + NP, *of* + NP, NP + *round* + NP, NP + *around* + NP, NP + *up to* + NP, *upward*, *onward*, and *along*. When comparing the patterns discussed in earlier literature and patterns in my data, the significant difference between the two lies in the plain *–ing* form and the *to*-infinitive.

The declining of popularity of the verb *urge* is also demonstrated in some major complement patterns of this verb. Starting with the non-sentential NP pattern, the figure below illustrates the general trend of this pattern in the data.

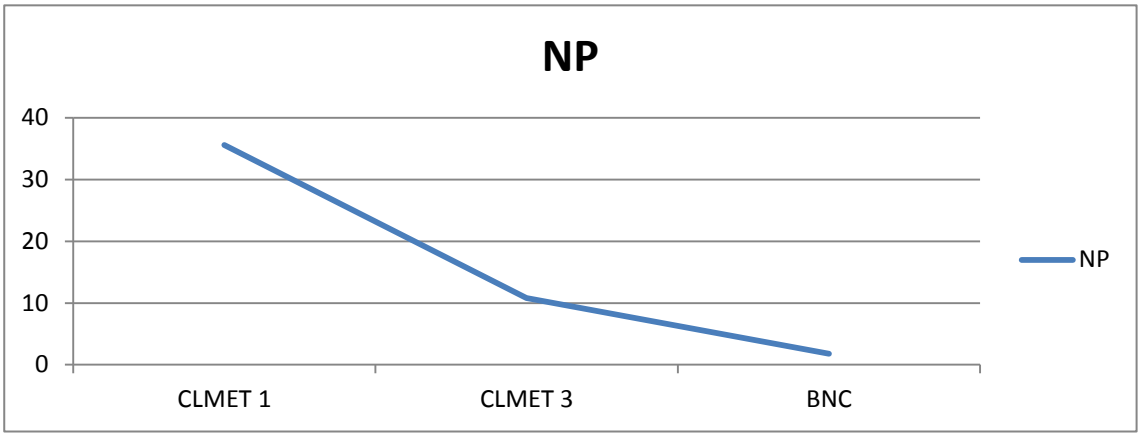

Figure 4: Normalized frequencies of the NP complement in the first and third parts of the CLMET and the BNC

The axis on the left indicates the normalized frequency. Between CLMET 1 and CLMET 3, a sharp decline is shown, and this means that from c. 1710 to c. 1920, the NP pattern falls out of favor, and this trend continues until present day.

Table 17 below shows extractions and insertions that occur with the NP pattern in the three sets of data. The percentages in parentheses are calculated on the basis of the total number of the NP pattern in the specific set of data (120, 43, and 14 NP patterns in CLMET 1, CLMET 3, and the BNC, respectively). As shown in the table, the NP pattern tends to simplify as time moves towards the modern era.

	Passivization	Relativization	Interrogation	Topicalization	Insertion
CLMET 1	47 (39.2%)	14 (11.7%)	6 (5.0%)	-	4 (3.3%)
CLMET 3	7 (16.5%)	2 (4.7%)	2 (4.7%)	1 (2.3%)	-
BNC	-	1 (7.1%)	-	-	-

Table 17: Movements and insertions with the NP pattern

As regards AdvP patterns, they also experience a decrease. The normalized frequency of AdvP patterns declines from 14.9 instances pmw in the CLMET 1 to 9.4 instances pmw in the CLMET 3, and it drops further down to 7 instance pmw in the BNC. The sharpest decline is between the CLMET 1 and CLMET 3. However, what is not shown in the figure is the increase of the percentage of AdvP patterns when compared within patterns. AdvP patterns increase their percentage share among all the patterns, from 19.5% in the CLMET 1 to 28% in the BNC.

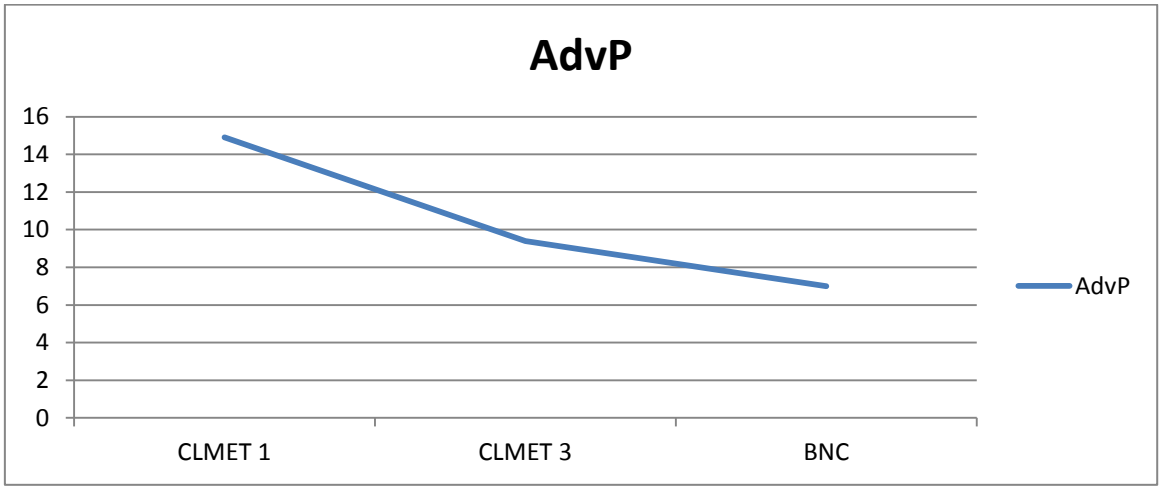

Figure 5: Normalized frequencies of AdvP complements in the first and third parts of the CLMET and the BNC

The zero complement pattern has also been decreasing as the frequency of *urge* decreases: the normalized frequency decreases from 1.4 instances pmw to 0.5 instances pmw in the BNC data. As the zero complement pattern only represents an insignificant fraction of the data, a separate chart of this pattern is not provided here.

Next I move on to sentential patterns. As usual I start with the NP + *to*-infinitive pattern.

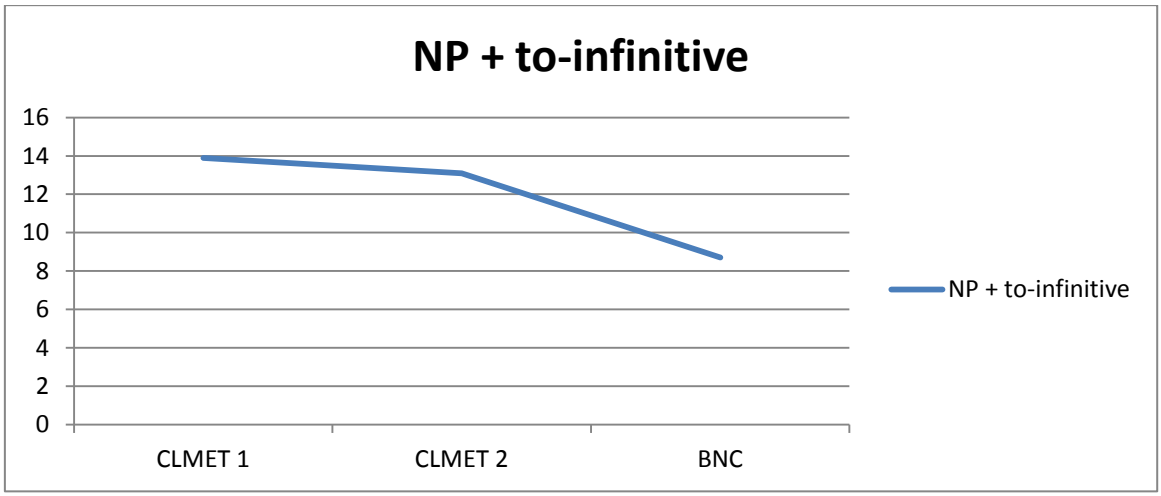

Figure 6: Normalized frequencies of NP + *to*-infinitive complements in the first and third parts of the CLMET and the BNC

Table 18 below shows the extractions and insertions in the three sets of data with the NP + *to*-infinitive pattern. The percentages are calculated with the total number of the NP + *to*-infinitive pattern in the specific set of data as the basis (48 in the CLMET 1, 52 in the CLMET 3, and 74 in the BNC).

	Passivization	Relativization	Interrogation	Topicalization	Insertion
CLMET 1	12 (25.0%)	-	-	-	11 (22.9%)
CLMET 3	5 (9.6%)	-	-	-	4 (7.7%)
BNC	4 (5.4%)	3 (4.0%)	-	-	3 (4.1%)

Table 18: Movements and insertions with the NP + *to*-infinitive pattern

As shown in Table 18, the complexity factors, especially exemplified in passivization and insertion, of the NP + *to*-infinitive pattern gradually lowers over the course of time. Two forms of extractions, namely interrogation and topicalization, are not found in the data.

At this stage, it is recalled that Biber et al. (1999, 710) state that *urge* does not occur in *to*-infinitive clauses without the object NP, and *urge* + *ing*-clause pattern is attested in the corpus (ibid., 742). Poutsma believes that *urge* requires the *–ing* form when in NP + *to*-infinitive but the NP is not present, and he further provides data evidence on the *–ing* form. However, throughout all my retrieved data samples, there are no *–ing* form patterns. I further examine the second part of the CLMET and the rest of the BNC data, which are not included in my data analysis. One *to*-infinitive is found in the second part of the CLMET (the original version). I list it below:

(113) They have their agents out all over France; speaking in townhouses, market-places, highways, and byways; agitating, urging to arm; all hearts tingling to hear. (Carlyle 1837, *the French Revolution*)

In (113), the object NP is missing, and it poses as a potential counter-example to Biber et al. and Poutsma's findings. From the contexts of the two sentences, we can infer that the subject of the matrix clause is "agents"; for the lower clause, the understood subjects are most likely to be the general population. As the subject and the PRO denote different entities, subject control construction is ruled out here. Sentence (113) is likely to involve object control, as the omitted NP

can be inferred from the context. However, according to Bach's Generalization, in object control constructions, the object NP cannot be omitted. The omission of the object NP in (113) can be seen as a potential violation to Bach's Generalization.

Further examples of violations of Bach's generalization come from the *OED*. Under the intransitive sense group in the *urge* entry in the *OED*, the following sentences are recorded:

(114) Erastus, ile not yet vrge to know the cause that brought thee hether. (*Trag. Solyman & Perseda*, ?1592)

(115) When she had no company at home, he would urge to go and seek it abroad. (*Something Odd*, 1804)

Discussions of exceptions to Bach's Generalization in the literature are presented cross-linguistically from various languages, including from my native language Chinese. Example (116) below comes from Yan Huang (2000, 42).

(116) Chinese

Baba bu rang ∅ kan dianshi, mama bu rang ∅ ting yinyue.

Dad not allow watch TV, mum not allow listen to music.

"Dad did not allow (him) to watch TV and mum did not allow (him) to listen to music."

From the perspective of the Italian language, Rizzi (1986, 503) claims that an object controller can always be omitted, as long as the sentence denotes a generic time reference. Ample examples are provided by Rizzi.

(117) Il bel tempo invoglia __ a [PRO restare].

"The nice weather induces __ to stay."

(118) L'ambizione spesso spinge __ a [PRO commettere errori].

"Ambition often pushes __ to make mistakes."

The argument on the nature of the missing object NP lies in whether it is only phonetically null but structurally realized, with the lexical meaning of the missing object included in the verb, and the

missing object is structurally non-existent. Rizzi embraces both, as he believes that it is language-specific, especially contrasting Italian with English.

Rudanko (1996) notices that verbs like *limit*, *lead*, and *convert* exhibit different behaviors when taking the NP + *–ing* pattern: *limit* does not allow any type of omission with the NP whether in NP + *–ing* or omission of the first NP in NP + *to* + NP pattern, while *lead* allows omission of the first NP in NP + *to* + NP structure; and the object control verb *convert* does not restrict the omission of the object NP in NP + *–ing* construction. Faced with this universal problem with Bach's Generalization, Rudanko (1996, 83) proposes B's Generalization in replacement of Bach's Generalization. B's Generalization has two versions, namely a strong form and a weak form:

> Strong form of B's Generalization: In object control structures, the object NP must be structurally represented, and matrix verbs that select such structures do not have intransitive uses.
>
> Weak form of B's Generalization: In object control structures, the object NP must be structurally represented, but matrix verbs that select such structures may have intransitive uses (Rudanko 1996, 83).

Verbs like *limit* belong to the strong form of B's Generalization, and *lead* and *convert* take the weak form of the B's Generalization. Rudanko (ibid.) further explains the two types of weak form: verbs that can be used intransitively in non-control constructions with non-sentential complements, such as "This leads to the following conclusion" and verbs that can be used intransitively in subject control constructions with sentential complements, such as "The plant converted to the requirements of the free market." Sentence (113) from the second part of the CLMET and sentence (115) from the *OED* show that *urge* does not belong to the second type of the weak form as *urge* does not involve subject control in the sentences. However, when *urge* takes the non-sentential *to* + NP pattern, it can be categorized into the first type of weak form which involves non-sentential complements. Sentences (113) to (115) appear to suggest that perhaps a third type of weak form could be added to the B's Generalization.

The NP + bare infinitive pattern is not mentioned in the literature, however, the BNC data produce one token in this pattern, and it is provided again below.

(119) Scenes made by guile or ones with clever promises urge the tides go out, leave her heart alone visibly unloved ... (B1C 1172).

I agree with Egan's classification of *urge* in NP + *to*-infinitive pattern as a Forward-looking Communication verb, however, Egan (2008) does not mention the NP + bare infinitive pattern for *urge* as his examination of this verb in the BNC. Egan's exclusion of this token as the NP + bare infinitive pattern could be out of consideration of poetic license. Egan's analysis on bare infinitive and *to*-infinitive for communication verbs is not convincing enough with the verb *urge*. Egan (2008, 92) asserts that "immediacy and certainty of realization are two things that all instances of bare infinitive complement constructions have in common." By immediacy, as I understand, Egan means "the immediate realization of the complement situation", and certainty is meant by Egan as "almost certain, rather than a merely possible or perhaps probable eventuality" (ibid., 91). Egan (ibid., 202-204) further explains the social relation between the matrix clause and the lower clause as "the former's wish being the latter's command"; when the matrix clause expects compliance, the bare infinitive is favored, and with the *to*-infinitive, alternative choices for the lower clause is possible.

Putting the immediacy feature aside, the certainty feature illustrated by Egan does not show with *urge* in sentence (119). With an NP + *to*-infinitive pattern, this sentence sounds equally uncertain as with an NP + bare infinitive.

For consideration of clarity, I include all patterns that take a *that*-clause, such as NP + *that*-clause, *to* + NP + *that*-clause, under the *that*-clause pattern in Figure 7. *That*-clause pattern takes a sharp decline from the mid-19th century to the modern time. The competition between NP + *to*-infinitives and *that*-clauses ends with a complete victory for the former. However, *that*-clauses are still used with *urge* in present day, and it has not fallen out of complement choices.

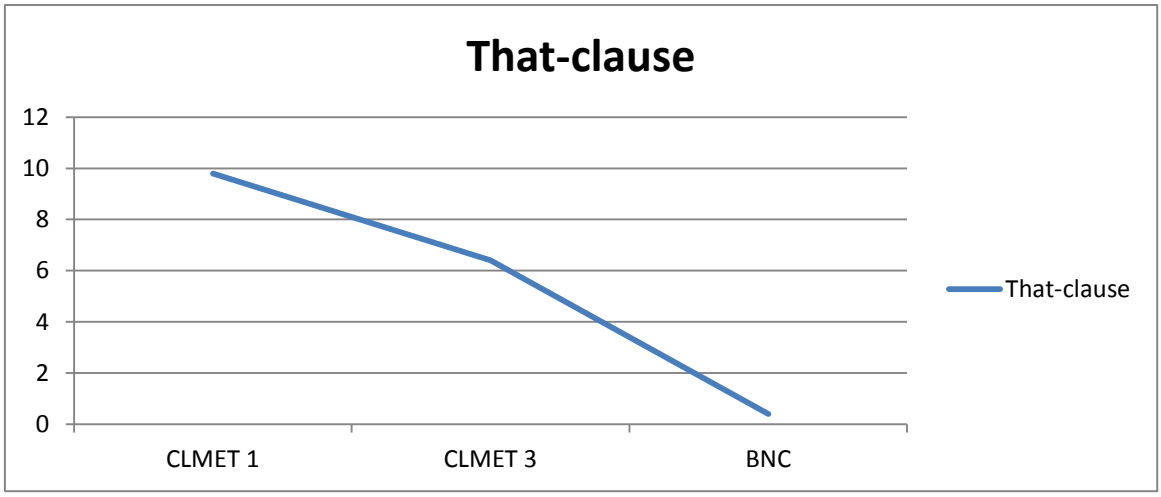

Figure 7: Normalized frequencies of *that*-clause complements in the first and third parts of the CLMET and the BNC

Table 19 below shows the extractions and insertions that occur with the *that*-clause pattern. The percentages are calculated with the total number of the *that*-clause patterns as basis, with 35 in the CLMET 1 and 25 in the CLMET 3, respectively. Neither extraction nor insertion constructions are found in the BNC data. However, the Complexity Principle does play a role in *that*-clauses and NP + *to*-infinitives, as *that*-clauses tend to attract more complex constructions.

	Passivization	Relativization	Interrogation	Topicalizaiton	Insertion	Clefting
CLMET 1	23 (67.6%)	-	-	-	18 (52.9%)	-
CLMET 3	12 (48.0%)	-	-	-	4 (16.0%)	1 (4.0%)
BNC	-	-	-	-	-	-

Table 19: Extractions and insertions of the *that*-clause pattern

From a semantic point of view, when contrasting the *that*-clause pattern with the NP + *to*-infinitive pattern, Verspoor's observation on directness of *to*-infinitives and indirectness of *that*-clauses with epistemic and deontic verbs is applicable to the verb *urge*. *Urge* can be categorized under the deontic verb group, and with *to*-infinitives *urge* expresses direct contact between the subjects in the main clause and the *to*-infinitive clause. With a *that*-clause *urge* denotes an indirect order given to the subject of the *that*-clause. Two examples are provided below to illustrate Verspoor's observation.

(120) He urged me to come and see his new place in Brighton. (A08 2745)
(121) She urged that they should take absolute possession of the house, and keep possession till Prince Eugen was … (Bennett 1902, *The Grand Babylon Hotel*)

However, the indirectness of *that*-clauses works best with mandative *that*-clauses; with non-mandative *that*-clauses, they do not carry any sense of an indirect order on the subject of the *that*-clause. (122) is one example of non-mandative *that*-clause.

(122) She admitted everything, but urged that her time was short, that nothing would induce her to leave her money to her nephew in the … (Butler 1903, *The Way of All Flesh*)

Next I turn to the direct speech pattern. This pattern experiences a sudden increase in frequency from the CLMET 1 to the CLMET 3, and it remains relatively steady from the CLMET 3 to the BNC, despite the general trend of decline with *urge*.

As with the *that*-clause pattern, the direct speech pattern is an umbrella term, as *to* + NP + direct speech, NP + direct speech, and *against* + NP + direct speech are also included in this pattern.

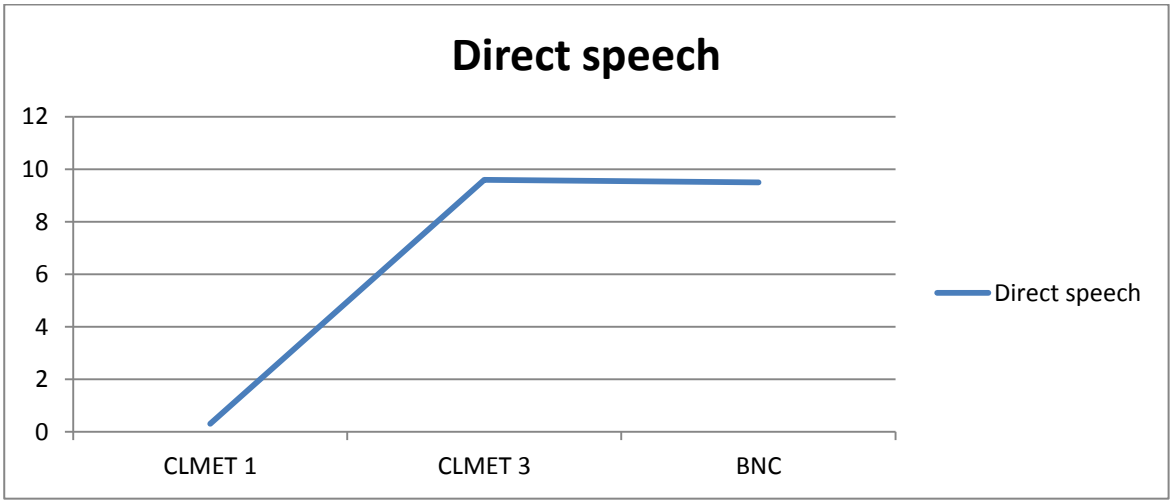

Figure 8: Normalized frequencies of direct speech complements in the CLMET 1, CLMET 3, and the BNC.

The poss. + *-ing* pattern occurs only once in my data and it is from the first part of the CLMET.

(123) … and with tears in his eyes first urged my going to Buxton, and then, (finding my refusal established,) that I should at least try the … (Pratt 1776, The Pupils of Pleasure).

To begin the discussion on this pattern, I first introduce Egan's (2008) observation with the *–ing* form. In contrasting *to*-infinitive and the *-ing* form, Egan's conclusion is that the *to*-infinitive denotes alternatives other than the preferred option indicated by the *to*-infinitive, while the *-ing* form does not carry this sense. When looking at the only *-ing* form in my data (reintroduced as (122) above), Egan's observation is well suited for it, as it neither denotes other clear alternatives nor the beginning or completion of an action. As regards the competition between the *to*-infinitive and the *–ing* form, under the big environment of the *–ing* form expanding at the expense of the *to*-infinitive, *urge* seems to swim against the tide and the *–ing* form remains in a marginal position in complement choices.

6.2 Sense and pattern relation

From a diachronic perspective, the five simplified senses are illustrated with the following diagram.

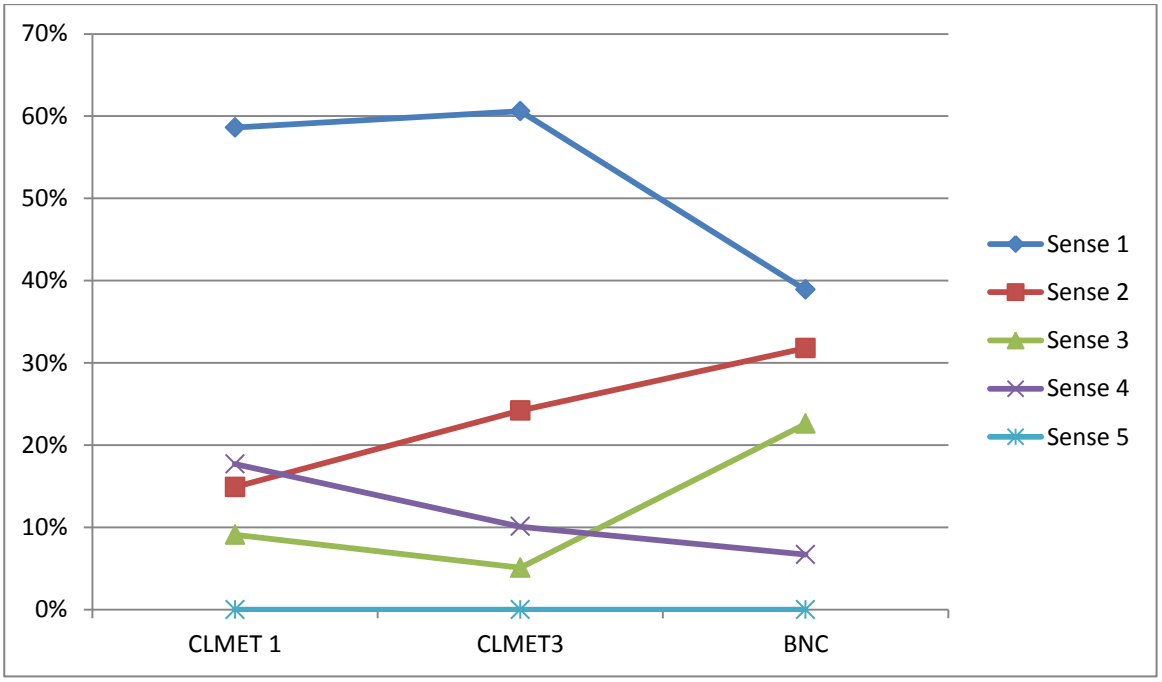

Figure 9: Percentages of the five senses in the CLMET 1, CLMET 3, and the BNC.

The percentage on the left axis indicates the proportion of a certain sense that occurs in the designated part of the CLMET or the BNC. Despite its decline, sense 1 still remains the most

dominant sense in modern British English; sense 2 has been steadily gaining popularity; sense 3 takes a sharp increase; sense 4, which can be interpreted figuratively, is also decreasing; and sense 5 is at the edge of being neglected.

The five simplified senses are found to cover all the complement patterns of *urge*. A summary for the senses and the patterns is provided in Table 19 below.

	Sense 1 To bring forward, state, or present facts, arguments, allegations, etc.	**Sense 2** To advise, persuade, or importune	**Sense 3** To hasten or press forcibly in a particular direction	**Sense 4** To stimulate, incite or to exercise pressure or constraint	**Sense 5** To ply, use, or work vigorously
Pattern	NP; *that*-clause; NP + *that*-clause; *to* + NP + *that*-clause; *wh*-clause; poss. + *-ing*; direct speech; NP + direct speech; *to* + NP + direct speech; *upon* + NP + direct speech; *against* + NP + direct speech; AdvP; ∅	NP + *to*-infinitive; AdvP; NP; ∅	NP + *to*-infinitive; AdvP; NP	NP + *to*-infinitive; AdvP; NP; ∅	
Total number	369	163	88	83	0
Percentage	52.5%	23.2%	12.5%	11.8%	0.0%

Table 20: Senses and structures

In Table 20, patterns that involve AdvPs are all categorized under the AdvP pattern. As the table shows, sense 1 is the most versatile sense, as it takes a wide range of patterns; while sense 2, 3, and 4 commonly prefer the NP + *to*-infinitive, NP, and AdvP patterns. Zero complements do not occur with sense 3 or sense 5. Sense 5 typically takes the NP complement, but this sense is not found in the data.

The relation between pattern and sense is noticeable with *urge*, as some patterns only occur with one sense. The biggest contrast between the patterns and senses is found with the *that*-clause and the NP + *to*-infinitive. Patterns that involve *that*-clauses, *wh*-clauses, or direct speech take sense 1 exclusively; while NP + *to*-infinitives occur with sense 2, 3, and 4, but not sense 1 or 5. The NP pattern occurs in all 5 senses, AdvP patterns occur in all five senses but sense 5, and zero complements are not found to occur with sense 3 or sense 5.

7 Conclusions and further studies

In this thesis, through analyzing data retrieved from two parts of the CLMET and the BNC, I attempt to provide answers for the research questions that I mentioned in the introduction. Throughout 300 years of time from 1710s to 1990s in the development of the English language, especially with written British English, the verb *urge* becomes notably less popular in usage; the complement pattern choice for the verb *urge* becomes more versatile, and it is typically shown with AdvP patterns. Some sentential patterns, such as the *that*-clause pattern, become less favored in written English, and so does the non-sentential NP pattern. The controversial plain *–ing* form is not found in the sample data; and the *to*-infinitive pattern, which lacks consensus among grammarians, triggers interesting discussions on Bach's Generalization. As regards extra-semantic factors on complement choices, complexity factors do play a role with *urge* when comparing NP + *to*-infinitive pattern with the *that*-clause pattern; however, the general trend of the Great Complement Shift does not affect *urge*, possibly due to the controversy of the plain *–ing* form with *urge*, as the majority of people are reluctant to accept this verb's compatibility with the *–ing* form.

Regarding future complement developments of the verb *urge*, a tendency exemplified in the thesis is that the direct speech, AdvP, and NP + *to*-infinitive patterns will remain strong, whereas the *that*-clause and NP patterns decrease still further. The five simplified senses introduced in this thesis also show clear future tendencies: the dominant sense 1 will still remain in its dominant position, but receives challenge from sense 2 and 3; sense 4, which prefers [-ANIMATE] causers, will become marginal, and sense 5 is already a marginal sense.

I also looked at the relation between pattern and sense, finding that some patterns, such as the *that*-clause and direct speech patterns, occur only with one sense, and some senses prefer certain patterns. The decrease of a certain pattern also indicates a decline in popularity with the sense that the pattern associates the most.

For future studies, as discussed in Chapter 6 that Bach's Generalization is not always applicable to *urge* as an object control verb, perhaps more attention could be devoted to studying missing object controllers, as violations of Bach's Generalization.

8 References

Primary Sources:

CLMET – The Corpus of Late Modern English Texts

BNC – The British National Corpus

Secondary Sources:

Allerton, David. 1988. "'Infinitivitis' in English," in J. Klegraf and D. Niehls, eds., *Essays on the English Language and Applied Linguistics on the Occasion of Gerhard Nickels 60th Birthday*. Heidelberg: Julius Groos.

Ball, C. N. 1994. "Automated Text Analysis: Cautionary Tales," *Literary and Linguistic Computing* 9, 295-302.

Biber, et al. 1998. *Corpus Linguistics*. Cambridge: Cambridge University Press.

Biber, et al. 1999. *Longman Grammar of Spoken and Written English*. Harlow: Longman.

Bolinger, Dwight. 1968. "Entailment and the Meaning of Structures," *Glossa* 2, 119-127.

Carnie, Andrew. 2002. *Syntax*. Oxford: Blackwell.

Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.

Davies, William & Stanley Dubinsky. 2004. *The Grammar of Raising and Control.* Oxford: Blackwell.

Dowty, David. 1991. "Thematic Proto-Roles and Argument Selection," *Language* 67, 547-619.

Duffley, Patrick. 2000. "Gerund versus Infinitive as Complement of Transitive Verbs in English," *Journal of English Linguistics* 28, 221-248.

Egan, Thomas. 2008. *Non-finite Complementation: A Usage-based Study of Infinitive and –Ing Clauses in English*. Amsterdam: Rodopi.

Faulhaber, Susan. 2011. *Verb Valency Patterns: A Challenge for Semantics-based Accounts*. Berlin: Walter de Gruyter.

Fillmore, Charles. 1968. "The Case for Case," in E. Bach and Robert Harms, *Universals in Linguistic Theory*. New York: Holt, Rinehart and Winston.

Francis, W. Nelson. 1982. "Problems of assembling and computerizing large corpora" in S. Johansson (ed.) *Computer Corpora in English Language Research*. Bergen: Norwegian Computing Centre for the Humanities, 7-24.

Hunston, Susan & Gill Francis. 1999. *Pattern Grammar.* Amsterdam: John Benjamins.

Haegeman, Liliane. 1991. *Introducing Government and Binding Theory*. Oxford: Blackwell.

Herbst, Thomas et al. eds. 2004. *A Valency Dictionary of English*. Berlin: de Gruyter.

Hoffmann et al. 2008. *Corpus Linguistics with BNCweb – a Practical Guide*. Frankfurt: Peter Lang.

Hornby, Albert S. ed. 2010. *Oxford Advanced Learner's Dictionary*. 8th ed. Oxford: Oxford University Press.

Huang, James. 1997. *Introduction to Syntax*. LSA Linguistic Institute.

Huang, Yan. 2000. *Anaphora, A Cross-linguistic Study*. Oxford: Oxford University Press.

Huddleston, Rodney. 1984. *Introduction to the Grammar of English*. Cambridge: Cambridge University Press.

Huddleston, R. & G. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.

Hunston, Susan. 2002. *Corpora in Applied Linguistics*. Cambridge: Cambridge University Press.

Kiparsky, Paul & Kiparsky, Carol. "Fact," in *Progress in Linguistics*. The Hague: Mouton.

Leech, Geoffrey. 1968. "Some Assumptions in the Metatheory of Linguistics," *Linguistics* 39, 87-102.

Lindquist, Hans. 2009. *Corpus Linguistics and the Description of English*. Edinburgh: Edinburgh University Press.

Partington, Alan. 1998. *Patterns and Meanings*. Amsterdam: John Benjamins.

Postal, Paul. 1994. "Contrasting Extraction Types," *Journal of Linguistics*, 30, 159-186.

Poutsma, H. 1904-1929. *A Grammar of Late Modern English*. Groningen: Noordhoof.

Poutsma, H. n.d. *Dictionary of Constructions of Verbs, Adjectives, and Nouns*. Unpublished.

Quirk, R., S. Greenbaum, G. Leech, & J. Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London: Longman.

Riddle, Elizabeth. 1975. "Pragmatic Conditions on Complementizer Choice," in *Papers from the Eleventh Regional Meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society.

Rizzi, Luigi. 1986. "Null Objects in Italian and the Theory of pro," *Linguistic Inquiry* 3, 501-557.

Rohdenburg, Günter. 1996. "Cognitive Complexity and Increased Grammatical Explicitness," *Cognitive Linguistics*, 7, 149-182.

Rohdenburg, Günter. 2003. "Cognitive Complexity and Horror Aequi as Factors Determining the Use of Interrogative Clause Linker in English," in Günter Rohdenburg & Britta Mondorf

(eds.), *Determinants of Grammatical Variation in English*, Berlin: Mouton de Gruyter, 205-250.

Rohdenburg, Günter. 2006. "The Role of Functional Constraints in the Evolution of the English Complementation System," in Christiane Dalton-Puffer et al. (eds.), *Syntax, Style and Grammatical Norms*. Bern: Peter Lang, 143-166.

Rudanko, Juhani. 1984. "On Some Contrasts Between Infinitival and That Complement Clauses in English," *English Studies* 2, 141-161.

Rudanko, Juhani. 1989. *Complementation and Case Grammar*. Albany, N.Y.: SUNY Press.

Rudanko, Juhani. 1998. "*To* Infinitives and *To -ing* Complements: a Look at Some Matrix Verbs in Late Modern English and Later," *English Studies* 79, 336-348.

Rudanko, Juhani. 2003. "Comparing alternate Complements of Object Control Verbs: Evidence from the Bank of English Corpus," in Pepi Leistyna & Charles F. Meyer (eds.), *Corpus Analysis Language structure and Language use*. Amsterdam New York: Rodopi, 272-283.

Salton, G. 1973. "Recent Studies in Automatic Text Analysis and Document Retrieval," *Journal of Association for Computing Machinery* 20, 258-278.

Smet, Hendrick de. 2005. "A Corpus of Late Modern English Texts," *ICAME Journal* 29, 69-82.

Smith, Michael. 2009. "The Semantics of Complementation in English: A Cognitive Semantic Account of Two English Complement Constructions," *Language Science* 31, 360-388.

Somers, Harold. 1984. "On the Validity of the Complement-Adjunct Distinction in Valency Grammar," *Linguistics* 22, 507-530

Svartvik, Jan. 1992. *Directions in Corpus Linguistics*: *Proceedings of Nobel Symposium 82 Stockholm, 4 - 8 August 1991*. Berlin: Mouton de Gruyter.

Verspoor, Marjolijn. 1999. "To Infinitives," in Leon de Stadler & Christoph Eyrich (eds.), *Issues in Cognitive Linguistics: 1993 Proceedings of the International Cognitive Lnguistics Conference*. Berlin: Mouton de Gruyter, 505-526.

Verspoor, Marjolijn. 2000. "Iconicity in English Complement Constructions: Conceptual Distance and Cognitive Processing Levels," in Kaoru Horie (ed.), *Complementation: Cognitive and Functional Perspectives*. Philadelphia: John Benjamins, 199-227.

Vosberg, Uwe. 2003. "Cognitive Complexity and the Establishment of -ing Constructions with Retrospective Verbs in Modern English," in M. Dossena & C. Jones (eds.), *Insights into Late Modern English*. Bern: Peter Lang, 197-220.

Vosberg, Uwe. 2003a. "The Role of Extractions and *Horror Aequi* in the Evolution of –ing Complements in Modern English" in Günter Rohdenburg & Britta Mondorf (eds.), *Determinants of Grammatical Variation in English*. Berlin: Mouton de Gruyter, 305-327.

Vosberg, Uwe. 2009. "Non-finite Complements," in Günter Rohdenburg & Julia Schüter (eds.), *One Language, Two Grammars?* Cambridge: Cambridge University Press, 212-227.

Wiezbicka, Anna. 1988. *The Semantics of Grammar*. Amsterdam: J. Benjamins.

Wood, F. T. 1956, "Gerund versus Infinitive," *English Language Teaching* XI, 11-15.